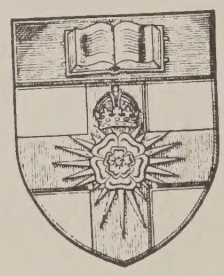
PARLIAMENTARY PAPERS



UNIVERSITY OF LONDON
LIBRARY

605946

6636

REPORTS

FROM

COMMISSIONERS:

TWENTY-TWO VOLUMES.

—(12.)—

EDUCATION (IRELAND);
QUEEN'S COLLEGES (IRELAND);
QUEEN'S UNIVERSITY (IRELAND);
FISHERIES (IRELAND).

Session
1 February —— 10 *August* 1866.

VOL. XXVIII.

BIBL. LONDIN. UNIV

1866.

REPORTS FROM COMMISSIONERS:

1866.

TWENTY-TWO VOLUMES:—CONTENTS OF THE

TWELFTH VOLUME.

N. B.—*THE* Figures *at the* beginning of the line, *correspond with the* N° *at the foot of each* Report; *and the* Figures *at the* end of the line, *refer to the* MS. Paging *of the Volumes arranged for The House of Commons.*

EDUCATION (IRELAND):

342. ANNUAL REPORT of the COMMISSIONERS of EDUCATION in *Ireland*, for the Year 1865-66 - - - - - - p. 1

QUEEN'S COLLEGE (BELFAST):

[3714.] REPORT of the PRESIDENT of QUEEN'S COLLEGE, *Belfast*, for the Year ending 31st March 1866 - - - - - - - 7

QUEEN'S COLLEGE (CORK):

[3692.] REPORT of the PRESIDENT of QUEEN'S COLLEGE, *Cork*, for the Year ending 31st March 1866; together with APPENDICES A. to L. inclusive - - - - - - - - - 131

QUEEN'S COLLEGE (GALWAY):

[3746.] REPORT of the PRESIDENT of QUEEN'S COLLEGE, *Galway*, for the Year ending 31st March 1866 - - - - - - - 243

QUEEN'S UNIVERSITY (IRELAND):

[3657.] REPORT on the Condition and Progress of the QUEEN'S UNIVERSITY in *Ireland*, for the Year 1865-66 - - - - - 335

FISHERIES (IRELAND):

[3608.] REPORT of the SPECIAL COMMISSION for IRISH FISHERIES, for the Year 1865 - - - - - - - - - - 355

[3704.] REPORT of the DEEP SEA and COAST FISHERY COMMISSIONERS (*Ireland*), 1865, to His Excellency the Lord Lieutenant, pursuant to the Act 5 & 6 Vict. c. 106 - - - - - - 411

ANNUAL REPORT of the COMMISSIONERS of EDUCATION in *Ireland*, for the Year 1865–66.

TO HIS EXCELLENCY JOHN BARON WODEHOUSE, LORD LIEUTENANT-GENERAL AND GENERAL-GOVERNOR OF IRELAND, &c. &c. &c.

WE, "the Commissioners of Education in Ireland," constituted by an Act of Parliament passed in the fifty-third year of the reign of his late Majesty King George the Third, and in obedience thereto, respectfully submit to your Excellency a General Report of the Proceedings of the Board since their last Report.

The Schools of Royal Foundation, as regards the Schools themselves, as well as the Estates from which they respectively derive their Endowments, being the most important of those vested in us, claim our first notice to your Excellency.

At Armagh Royal School, where scarlatina had broken out, and where the pupils had been dismissed previously to the date of our last Report, we beg to state that we subsequently caused a thorough cleansing and purification of the buildings to be made, and that the School was re-opened in the month of August, and the attendance of the pupils soon afterwards resumed.

At Dungannon Royal School, the number of pupils in attendance having much increased, we have been obliged to extend the arrangements for their accommodation; and we have the satisfaction to report to your Excellency that this Royal School continues to maintain, as is evinced by the success of the pupils educated there, that high reputation which it has reached under the guidance of its present Head Master. And we beg to state that since the date of our last Report we have repaid to the Master another instalment of the large amount heretofore advanced by him for the extension and improvement of this Establishment, which is reported to us to be now in a most creditable condition.

At the Enniskillen Royal School, the attendance of pupils, both resident and daily, continues to be very large; and we have again found it necessary to incur a considerable outlay in erecting new School and Class Rooms, and in making alterations in the buildings, which are of a very extensive nature. Our architect has reported that all these works have been executed in a very satisfactory manner; but that in order to make the establishment more complete, other works have become necessary, in consequence of the alterations and extensions above alluded to. The undertaking these latter works has not, however, been as yet decided upon by us.

At the Cavan Royal School, beyond the fact that we have caused such outlay to be made as was reported to us to have become necessary, there is nothing calling for any special notice from us to your Excellency.

At the Banagher Royal School, it having become known that the present Head Master had been nominated by Government to a benefice, but that in consequence of some legal difficulty he had not, as yet, been put in possession of it, and had not resigned the Mastership of Banagher School, which he holds under patent from the Crown, the attendance of pupils has considerably fallen off; this inconvenience to those resident in that locality will, it is hoped, soon be overcome by the resignation of the present Master, and the appointment, by your Excellency, of a successor to his post. And we may state to your Excellency that we resolved to establish at this school certain money prizes, which have been found to act so beneficially at Raphoe Royal School.

The Raphoe Royal School, although placed in a remote and not very thriving locality, continues through the exertions of the Head Master steadily to improve its reputation; and the Report presented to us by an eminent scholar, who, at our request, conducted the examination for the school prizes annually granted by us, speaks in highly complimentary terms of the instruction and answering of the competing pupils.

The Carysfort Royal School, which is situated in a mountainous part of the County Wicklow, shows no feature calling for special report to your Excellency.

The Reports presented annually by us have so frequently pointed out the great value and importance of the Royal Scholarships founded and endowed by us, that it may be sufficient now to state that these valuable exhibitions are held by pensioners and sizars only, fellow commoners not being eligible to them; that they can be obtained solely as the results of a rigid competitive examination held by Fellows of the University; that they become forfeited unless the holders obtain in each year of their academic course a certain amount of University honours fixed by us, and that consequently the struggle to obtain, and the diligence and scholarship required for retaining them, have been productive of most satisfactory results. Many of those who had been amongst our Exhibitioners are now holding positions of eminence in the public service, both abroad and in this country. The course of examination for election to these Exhibitions has from time to time been much enlarged by us, and is, to a certain extent, varied every year. And we beg to append to this our Report a copy of the most recent orders made by us on this subject. We further beg to submit to your Excellency's notice the following table in reference to those now holding Exhibitions founded by us:

	£.			£.	
A. Robinson	40	per annum.	R. C. M'Kell	40	per annum.
C. Faussett	20	„	S. Woodhouse	50	„
H. Tracey	30	„	R. Ringwood	30	„
M. Armstrong	30	„	W. A. Leech	50	„
E. P. Riddall	50	„	J. MacIvor	50	„
J. Gray	30	„	J. B. Hutton	30	„
J. Stanley	30	„	J. G. Gibson	50	„
H. B. Leech	50	„	G. Wright	30	„
W. Colquhoun	50	„	H. Norman	50	„
C. Kough	50	„	G. Hetherington	30	„
R. C. Christian	30	„	M. H. Little	50	„
W. Erskine	50	„	T. Gordon	30	„
T. H. H. Crossley	50	„	F. Pollen	30	„

Referring

Referring to the Schools of Private Endowment connected with this Board, we have to report that that of Midleton, which had fallen into an unsatisfactory state, is now in a flourishing condition, under the care of its present Master, who had formerly held a Royal Scholarship on the Dungannon foundation. A Report presented to us by the local Governors of this School, after a Visitation very recently held by them in the Schoolhouse, gives a highly gratifying account of the management of the School and of the establishment generally, recommending at the same time, certain outlay, which we have determined to make, on the premises.

At Ballyroan and Navan, which are Privately Endowed Schools, vacancies have occurred in a Mastership and Undermastership respectively. Some delay in making appointments has taken place in consequence of legal difficulties in ascertaining the rights of certain parties as Patrons. We have reason to believe that all difficulties are now removed, and that the deeds of appointment will shortly be transmitted to us. It may be right to state that these Establishments have not been closed during the vacancies referred to.

The Endowed Schools of Tullyvin have, in consequence of certain regulations made by us, and of the superintendence given by the local Managers, become of much more benefit than heretofore to those residing in that part of the County Cavan.

Of the other Schools of Private Endowment in connection with this Board, we do not feel called on to make a special Report; but we may state that in all cases of Schools, either of Public or Private Endowment, where there are funds under our control, the Schoolhouses and premises are kept by us in good and satisfactory repair.

Of the Estates which constitute the Endowments of many of the Schools, those of the Royal Schools are much the most important and extensive, requiring under our control the constant care and attention of the respective local Agents in whose charge they are placed: and we beg to report that, generally speaking, the Estates are in a very satisfactory condition, and the tenantry peaceable and well conducted.

On the Dungannon Royal School Estate, the Schoolhouse which we resolved to erect for the children of the tenantry, has now been reported by the architect in charge to have been completed to his satisfaction; and we hope soon to be able to open a School there.

On the Cappaghloughlin Estate, we have been unable as yet, to carry out the partition of certain bog lands as had been agreed upon by us and by the deceased proprietor, and referred to in a former Report; but it is expected that the delay is merely temporary, and that the arrangements will be completed before our next Report.

The Diocesan School question generally, has been so frequently brought by us under the notice of the Executive, that we merely beg to state that the appointment recently made by your Excellency to the Mastership of the District Diocesan School of Kilmore, Raphoe, and Clogher, will it is generally believed

exercise a very salutary influence on this hitherto unsuccessful Establishment. And that the Elphin, Clonfert, and Kilmacduagh District Diocesan School at Sligo is, we are happy to be able to report, likely to become successful under the care of its present energetic Master, who has been enabled to induce the Ecclesiastical Commissioners, in whom the temporalities of the diocese of Elphin are vested, to restore to the School that Endowment which, for so long a series of years, had been enjoyed by the Masters at Elphin, but which they had at first refused to sanction on the removal of the School from Elphin to Sligo, both towns being in the same diocese.

All which we respectfully submit to your Excellency as our Report.

(signed)	MAZIERE BRADY, C.	(L.S.)
	FRANCIS BLACKBURNE.	(L.S.)
	RICHARD MACDONNELL.	(L.S.)
	WILLIAM GIBSON.	(L.S.)
	ROBERT SHAW, Bart.	(L.S.)
	J. G. PORTER.	(L.S.)
	J. D. FITZGERALD.	(L.S.)

Wm. Cotter Kyle, LL.D., M.R.I.A.,
Secretary.

Clare-street, 26 May 1866.

EDUCATION (IRELAND).

ANNUAL REPORT of the COMMISSIONERS of EDUCATION in *Ireland*, for the Year 1865–66.

(Presented pursuant to Act of Parliament.)

Ordered, by The House of Commons, *to be Printed,*
12 *June* 1866.

342.

Under 1 *oz.*

Vol. XXVIII
[-3711-]

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, BELFAST,

FOR

THE YEAR ENDING MARCH 31, 1866.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, BELFAST,

FOR THE

YEAR ENDING MARCH 31, 1866.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

CONTENTS.

REPORT, ... Page iii

APPENDIX—

1. Queen's College, Belfast, and Queen's University, ... 1
2. Return of the Number of Students attending each Class in the Queen's College, Belfast, in each Year, ... 4
3. Return of the Amount of Fees received by each Professor in the Queen's College, Belfast, in each Year, ... 6
4. Account of the Expenditure of one Year's Additional Grant to the Queen's College, Belfast, ending 31st March, 1865, ... 6
5. General Class Examinations, Queen's College, Belfast, 1864–65, 1865-66, ... 9
6. Return of the Number of Lectures delivered by each Professor in the Queen's College, Belfast, in each Year, ... 10

   October Examinations of Queen's College, Belfast, 1865, . 12

   Hours of Lectures, Queen's College, Belfast, for Session 1865–66, 14
7. An Enlarged Digest of Subjects and Courses pursued in Queen's College, Belfast, ... 16
8. General Class Examination at the end of the Session 1864–65, . 27

   Matriculation Examination, October, 1865, ... 79

   Scholarship Examinations, October, 1865, ... 81

Page
iii
1
in the
4
in the
6
to the
6
64-65,
9
in the
10
12
65-66, 14
teen's
16
27
79
81

THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, BELFAST,

FOR

THE YEAR ENDING MARCH 31, 1866.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

I have the honour of presenting to your Majesty the following Report regarding the condition of this College for the year ending the 31st of March, 1866. In discharging this duty, it affords me great satisfaction to be enabled to record the subjoined statements in reference to the various departments of the College, which present continued evidence of its adaptation to the present state of literature and science, and to the educational demands of the country at large.

During this Session which commenced in October last, 413 students have been present in attendance on their different courses of lectures; whilst the general discipline of the College has been so well observed that hardly a case of its violation has come under my notice or the consideration of the Council. The diligence and advancement in learning of the great mass of the students, has been gratifying to the distinguished Professors who have been charged with their instruction. In the varied competitive examinations into which many of the students have entered, whether for the public service or for university and collegiate distinction, they have conferred honour on the College which produced them, and have reaped important benefits for themselves. This success in various arenas of intellectual conflict, whilst it reflects much credit on the students, affords another testimony to be added to many former evidences of the sound learning, the great ability, and the unflagging zeal of the eminent corps of Professors whom your Majesty has been pleased to place in their respective chairs. Knowing as I do the constant demands that are made on the time and talents of these gentle-

men, and marking their determination to make this College a centre of science and literature worthy of its name and of the desires of its founders, I cannot withhold the expression of my thankfulness for their untiring efforts and their unquestionable success. Not the least agreeable part of my duty in presenting this Report, arises from the fact that my experience of the results of this Collegiate Session, in no degree diminishes the convictions I have ever felt respecting the perfect practicability and public advantages of united education carried on within the same walls, and in the same lecture rooms. Professors and students of the different religious denominations, meet and mingle here, exercising towards one another all due respect for the rights of conscience, forming friendships that endure, and affording a most salutary example that a fixed adherence to religious opinion is quite compatible with all the charities and amenities of public and social life. In this respect also, the authorities of the College have fulfilled the mission assigned to them by your Majesty.

A great variety of Tables will be found in the Appendix to this Report; but I think it important to place the following Returns in the body of the Report itself. I wish to draw particular attention to the steady increase of students as brought out in Table No. I., from 154 in the Session 1852–53 up to 413 in the present year, of whom 360 are matriculated, and only 53 non-matriculated, the half of the latter being medical students. Of the total number of 154 who were on the lists in Session 1852–53, 53 were non-matriculated. This remarkable change as to the desire for graduation on the part of the students, is owing, in a great measure, to the public influence which the Queen's University in Ireland has attained and has exercised, to the high standard both in subjects and in the mode and nature of the examinations which that University has maintained, and to the stamp of value which is now admittedly impressed on its degrees and distinctions.

I.—Numbers and Religious Persuasions of Students attending Lectures in Queen's College, Belfast, in each Session from its opening.

Sessions.	Matriculated.	Non-Matriculated.	Total.	Established Church.	Roman Catholic.	Presbyterian.	Methodist.	Independent.	Various.	Total.
1849–50, . .	90	105	195	33	5	145	4	1	7	195
1850–51, . . .	110	75	185	33	10	136	4	1	1	185
1851–52, . .	120	69	189	40	14	129	5	–	1	189
1852–53, . .	101	53	154	33	15	100	4	–	2	154
1853–54, . .	114	54	168	36	14	107	6	–	5	168
1854–55, . .	118	65	183	34	14	131	3	–	1	183
1855–56, . .	119	74	193	33	19	131	5	2	3	193
1856–57, . .	136	58	194	35	14	131	3	2	9	194
1857–58, . .	153	54	207	31	14	154	4	1	3	207
1858–59, . .	160	63	223	45	14	153	8	2	1	223
1859–60, . .	199	58	257	43	16	184	8	2	4	257
1860–61, . .	239	73	312	57	22	216	7	–	10	312
1861–62, . .	299	76	375	59	17	256	13	4	16	375
1862–63, . .	335	53	388	61	24	275	11	3	14	388
1863–64, . . .	340	47	387	63	26	261	10	3	24	387
1864–65, . .	356	49	405	58	22	285	9	1	30	405
1865–66, . .	360	53	413	60	19	281	13	2	38	413

II.—Numbers and Religious Persuasions of Students who have entered Queen's College, Belfast, in each year since its opening.

Sessions.	Matriculated.	Non-Matriculated.	Total.	Established Church.	Roman Catholic.	Presbyterian.	Methodist.	Independent.	Various.	Total.
1849–50,	90	105	195	33	5	145	4	1	7	195
1850–51,	51	42	93	15	7	68	1	–	2	93
1851–52,	42	40	82	25	7	47	2	–	1	82
1852–53,	31	23	54	16	7	28	2	–	1	54
1853–54,	39	23	62	14	5	36	3	–	4	62
1854–55,	41	38	79	13	6	56	2	–	2	79
1855–56,	33	29	62	17	5	36	2	2	–	62
1856–57,	40	28	68	18	4	40	1	–	5	68
1857–58,	43	28	71	8	6	55	2	–	–	71
1858–59,	51	37	88	24	8	51	4	1	–	88
1859–60,	66	24	90	14	6	64	4	–	2	90
1860–61,	96	41	137	29	13	85	3	–	7	137
1861–62,	114	38	152	27	5	101	6	3	10	152
1862–63,	115	22	137	23	12	92	5	–	5	137
1863–64,	109	18	127	25	5	86	3	1	7	127
1864–65,	108	27	135	22	6	97	3	–	7	135
1865–66,	88	30	118	17	7	83	5	–	6	117
	1,157	*593	1,750	339	114	1,170	52	8	66	1,750

III.—Return showing the Number of Students attending the Lectures of each Professor in each year since the opening of the College.

Professor of	1849–50.	1850–51.	1851–52.	1852–53.	1853–54.	1854–55.	1855–56.	1856–57.	1857–58.	1858–59.	1859–60.	1860–61.	1861–62.	1862–63.	1863–64.	1864–65.	1865–66.
Greek,	71	74	46	23	32	38	43	36	44	58	77	100	140	157	120	133	118
Latin,	63	72	44	25	32	35	40	29	44	54	72	94	139	149	113	118	112
Mathematics,	86	70	51	36	42	44	45	52	55	62	78	95	106	122	111	113	98
English,	52	46	53	35	44	44	51	43	56	65	73	100	116	135	125	128	113
Modern Languages,	62	56	41	31	34	52	43	52	56	63	78	150	177	150	125	146	151
Celtic,	The Lectures open to the public.														Vacant.		
Natural Philosophy,	48	43	61	29	40	35	35	37	43	34	46	95	95	104	106	102	116
Natural History,	12	49	75	52	58	68	58	69	62	87	84	77	77	83	112	121	101
Mineralogy,	†–	6	14	13	15	13	9	20	13	11	16						
Logic and Metaphysics,	3	–	45	39	44	45	43	51	46	54	44	79	106	114	103	91	116
Chemistry,	40	56	75	53	62	70	60	76	68	88	99	82	106	101	104	122	84
Engineering,	10	13	15	9	12	12	8	17	16	11	16	14	16	25	30	31	29
Agriculture and Medical Jurisprudence,	13	21	24	14	22	17	16	20	25	22	27	21	24	22	–	–	–
															25	30	30
Anatomy,	35	44	55	61	53	63	65	46	52	68	81	101	107	105	114	132	138
Medicine,	9	17	17	12	15	18	33	27	19	22	29	25	42	27	36	44	48
Surgery,	24	15	26	29	28	30	48	32	30	29	39	51	53	54	47	50	55
Midwifery,	14	10	12	16	17	18	24	13	7	17	14	26	36	22	34	19	23
Materia Medica,	11	14	16	17	17	23	25	11	18	22	27	33	38	37	29	38	47
English Law,	17	16	17	15	11	15	10	14	12	13	11	16	14	12	12	14	19
Jurisprudence,	11	11	23	10	19	11	15	12	27	20	23	19	20	29	27	31	34

This return is given more fully in detail in the Appendix, pp. 4, 5.

The return of Lectures delivered in each Session appears in pp. 11, 12 of the Appendix.

* Of the 593 who entered as non-matriculated Students, 99 afterwards passed a matriculation examination. The College Register contains 1,256 matriculated and 494 non-matriculated, in all 1,750 students.

† Public.

IV.—Return of the Number of Medical Students in attendance in each Session.

Session.	Matriculated.	Non-Matriculated.	Total.	Session.	Matriculated.	Non-Matriculated.	Total.
1849–50,	28	27	55	1858–59,	45	34	79
1850–51,	20	35	55	1859–60,	56	39	95
1851–52,	25	39	64	1860–61,	70	46	116
1852–53,	29	33	62	1861–62,	81	48	129
1853–54,	29	37	66	1862–63,	89	33	122
1854–55,	39	36	75	1863–64,	110	33	143
1855–56,	33	48	81	1864–65,	126	25	151
1856–57,	36	25	61	1865–66,	130	29	159
1857–58,	35	32	67				

The above tabular Returns establish the success of this College and its public and educational utility, and this at a time when Ireland is only recovering from a succession of trials which have affected all her interests, whilst her population has been greatly diminished.

The condition and continued prosperity of the Medical School are such as to justify the grant which your Majesty's Government has made for the accommodation of the Professors and Students of that important department. This College opened with 55 medical students, whose number now amounts to 159, of whom 130 are matriculated. The School of Anatomy has been attended this Session by 138 students. The General Hospital of Belfast affords opportunities which are rarely met with in any similar establishment for the instruction and practice of medical students. The number of cases of accident and disease constantly presenting themselves for attention in that hospital, sent in from a great seaport and manufacturing town and district, opens to the student of medicine a field for observation and practice as great as could be desired. Owing to the munificent bounty of two gentlemen of wealth, the hospital accommodation for patients has of late been materially increased.

The anatomical and medical rooms in the College grounds are nearly completed, and will be fully ready for occupation in October next. These, and the museum they are intended to contain, will be very extensive and most suitable for the accommodation of the large and prosperous Medical School.

The new Engineering Lecture-room has been appropriately fitted out for a department which continues to prosper under its excellent Professor. The foundation of the new Library, for which your Majesty's Government granted the necessary funds, has now been laid; and whilst I have to tender my thanks for the promptitude with which my application for this grant was responded to, I am also grateful for the rapidity with which steps have been taken for the immediate erection of this building. Its opening will allow the great hall of the College to revert to its original purpose, of being used for examinations and collegiate meetings, for which it is now, in its present condition, entirely unfitted.

The Secretary of the Queen's University has been pleased to furnish me with the subjoined statement of the number of degrees which were conferred by the Chancellor of the Queen's University during the last year. Of these, and of the exhibitions

connected with them, a proportionate share was obtained by the students of Belfast College, who did not fail fully to hold their ground when thrown into competition with their rivals of the Cork and Galway Colleges.

I am certain that the students of the Queen's Colleges never could have approached the standard of acquirement which have secured their University and other distinctions but for the advantages of a steady collegiate culture and training.

The intercommunication of students with one another, and their attendance on the prelections of accomplished Professors, are, as a general rule, the surest foundations for University distinctions, as well as for all professional advancement in afterlife.

Degrees, Diplomas, Certificates, &c., conferred by the Queen's University in 1865.

Degree of LL.D.,	1
„ of M.D.,	31
„ of M.Ch.,	24
„ of M.A.,	15
„ of M.A., ad eundem,	1
„ of LL.B.,	2
„ of LL.B., ad eundem,	1
„ of B.A.,	56
Diploma of C.E.,	7
„ of E.L.,	1
In all, including the 2 ad eundem Degrees,	139

Also,

51	Candidates passed first University Examination in Arts.
55	„ „ first University Examination in Medicine.
20.	„ „ first University Examination in Engineering.
126	

Also,

16 Candidates obtained middle-class certificates.

Total, ... 281

In accordance with the provisions of the Calendar, the sum of £1,400 was allocated at the beginning of the session to scholarships in the various departments, and £100 at the close of the session to the successful candidates for prizes at examination.

In addition to these sums, which accrue annually from the Consolidated Fund, the following special exhibitions were allocated during the year:—

1. Of the Exhibitions of the Queen's University founded by public subscription, originated by Sir Robert Peel, six were conferred last session upon four students of this College, viz.:—

J. C. Newsome, First Arts Exhibition, £20 a year, for three years; and the Exhibition in Classics, £10 a year, for three years.

H. M'L. Smith, Second Arts Exhibition, £15 a year, for three years; and the Exhibition in Mathematical Science, £10 a year, for three years.

J. E. Murphy, Third Arts Exhibition, £15 in the first year, £15 in the second, and £10 in the third.

J. Wilson, First Exhibition in Engineering, £20 a year, for two years.

2. The Tennant and Drennan Exhibitions of £5 each were conferred upon two students from the Royal Belfast Academical Institution.

3. The Wilson Exhibition of £20 was divided between two students.

4. Dr. Sullivan's Exhibition of £30 per annum for three years was conferred last October. Two other Sullivan Exhibitions of £15 per annum each, for three years, formerly conferred, are now being paid; which make up the total of £60 per annum conferred by this gentleman upon this College.

5. I have the satisfaction of stating that Mr. John Charters of this town has also with great munificence appropriated £120 per annum for 10 years to the following Exhibitions, each tenable for one year by students in this College:—

In Medicine, £50.

And for students who had previously studied in Belfast Academical Institution:—

In the Literary Division of Arts, three Exhibitions—one of £15 and two of £10 each.

In the Science Division of Arts, three Exhibitions—one of £15 and two of £10 each. Of these six have been appropriated during the past session.

Annexed is a full Appendix, giving an account in detail of the number of students in each class, the number of lectures delivered by each Professor, with a digest of the various subjects and courses of lectures, the papers used in the Matriculation, Scholarship, and Class Examinations, the Bursar's account of the expenditure of the College with the fees received, and other information, as it appears by the table of contents.

All of which is testified on behalf of the College by your Majesty's most dutiful servant,

P. SHULDHAM HENRY.

QUEEN'S COLLEGE, BELFAST,
June 1, 1866.

APPENDIX.

APPENDIX, No. 1.

Appendix, No. 1.

Queen's College, Belfast, and Queen's University.

Queen's College, Belfast, and Queen's University.

The College is a Corporation under the name and style of "Queen's College, Belfast." It was founded under the provisions of the Act 8 & 9 Victoria, cap. 66, intituled "An Act to enable Her Majesty to endow new Colleges for the Advancement of Learning in Ireland." Under the powers given by this Act, it was determined to found three Colleges. Belfast, Cork, and Galway, were selected as the sites of these Colleges, and on the 30th day of December, 1845, letters patent were issued, incorporating them. The Presidents and Vice-Presidents of the three Colleges were formed into a Board, called "The Board of Queen's Colleges," for the purpose of drawing up the statutes and arranging the system of education to be pursued in them.

On the 4th of August, 1849, the Professors were appointed, and the Colleges opened for the reception of students on the 30th October, in the same year.

Letters patent, constituting the statutes, were issued on the 11th of December, 1849, and a further charter was issued in the year 1863.

The Council of the College.

The President.
The Vice-President.
P. Redfern, M.D., Professor of Anatomy.
J. Purser, M.A., Professor of Mathematics.
Wyville Thomson, LL.D., Professor of Natural History.
Alexander Gordon, M.D., Professor of Surgery.
James Thomson, A.M., Professor of Civil Engineering.
C. MacDouall, LL.D., Professor of Greek.

Professors.

The Greek Language,	Charles MacDouall, LL.D., M.R.I.A.
The Latin Language,	William Nesbitt, M.A.
History and English Literature,	George Lillie Craik, LL.D.
Modern Languages,	A. L. Meissner, PH.D.
The Celtic Languages,	[Vacant.]
Mathematics,	John Purser, M.A.
Natural Philosophy,	John Stevelly, LL.D.
Chemistry,	Thomas Andrews, M.D., F.R.S., M.R.I.A.
Natural History, Mineralogy and Geology,	WyvilleThomson, LL.D., F.R.S.E., F.G.S., M.R.I.A.
Logic and Metaphysics,	Rev. James M'Cosh, LL.D.
Civil Engineering,	James Thomson, C.E., A.M.
Agriculture,	John F. Hodges, M.D., F.C.S.
Anatomy and Physiology,	Peter Redfern, M.D. Lond., F.R.C.S.
Practice of Medicine,	James Cuming, M.D.
Practice of Surgery,	Alexander Gordon, M.D.
Materia Medica,	James Seaton Reid, M.D.
Midwifery,	William Burden, M.D.
English Law,	Echlin Molyneux, A.M.
Jurisprudence and Political Economy,	T. E. Cliffe Leslie, LL.B.

Appendix, No. 1.

Queen's College, Belfast, and Queen's University.

OFFICE BEARERS.

Curator of Museum,	The Professor of Mineralogy and Geology.
Registrar,	Rev. Richard Oulton, B.D.
Librarian,	Rev. George Hill.
Bursar,	Alexander Dickey, Esq.

DEANS OF RESIDENCES.

United Church of England and Ireland,	Rev. Henry Murphy, A.M.
General Assembly of the Presbyterian Church in Ireland,	Rev. Henry Cooke, D.D., LL.D.
Irish Association of Non-Subscribing Presbyterians,	Rev. John Porter.
Wesleyan Methodists,	Rev. Joseph Wm. M'Kay.

The students of the College are either Matriculated or Non-matriculated. All the courses for Matriculated students in Arts, including the Department of Civil Engineering, and also in the Faculties of Medicine and of Law, will be found in the Calendar, which is published annually.

Non-matriculated students, on paying the regulated class fees, and signing an engagement to observe order and discipline in the College, are permitted, without undergoing a preliminary examination, to attend any separate course or courses of Lectures; but are not permitted to become candidates for Scholarships or Prizes, or to enjoy other privileges of the Matriculated students.

Students in any of the Faculties can be admitted *ad eundem* from the other Queen's Colleges, or from any University capable of granting degrees.

COLLEGIATE SCHOLARSHIPS.

In the FACULTY OF ARTS—30 Junior Scholarships, of £24 each, are awarded to Undergraduates—15 for proficiency in Literature, and 15 for proficiency in Science; also, 8 Senior Scholarships, of £40 each, to Graduates, one being limited to students who have also completed the course for the degree of LL.B.; and 5 Scholarships, of £20 each, to Engineering Students.

In the FACULTY OF MEDICINE—8 Junior Scholarships, of £25 each, are awarded.

In the FACULTY OF LAW—3 Junior Scholarships, of £20 each, are awarded.

SCHOLARSHIPS AWARDED IN THE SEVERAL FACULTIES, 1864-65.

7 Senior Scholarships awarded.
20 Junior Scholarships in Arts awarded.
4 Engineering Scholarships.
8 Medical Scholarships.
3 Law Scholarships.

1865-66.

7 Senior Scholarships awarded.
20 Junior Scholarships in Arts awarded.
5 Engineering Scholarships.
8 Medical Scholarships.
3 Law Scholarships.

By an order of Her Majesty in Council, of 21st May, 1855, applying to the Civil Service, it is ordained that "every person nominated to a junior situation should obtain a certificate of qualification before entering on his duties. The ordinary classes in Queen's College embrace the branches required in the Examinations for the Civil Service, and also in the Examination for students intending to become candidates for commissions in the Royal Artillery and Engineers, and for appointments to the Civil Service of India, both of which are now thrown open to public competition.

Queen's University in Ireland.

The charter founding the Queen's University in Ireland received the Royal sanction in the year 1850, and it provides that its Senate should have the power of conferring upon the students of the Queen's Colleges of Belfast, Cork, and Galway, such degrees and distinctions, in the Faculties of Arts, Law, and Physic, as are granted and conferred in other Colleges and Universities of Great Britain and Ireland. It further ordains that any of the students of the three Queen's Colleges, who shall have obtained such degrees in any of the several Faculties of Arts, Medicine, and Law, as shall be conferred by the Chancellor and Senate of the Queen's University, shall be fully possessed of all such rights, privileges, and immunities, as belong to similar degrees granted by other Universities or Colleges, and shall be entitled to whatever rank and precedence is derived from similar degrees granted by other Universities.

By the charter of the Queen's University, candidates for Degrees in Medicine are required to have attended *at least two courses of Medical Lectures* in some one of the Queen's Colleges. For the remainder of the courses of Medical Lectures, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.

The Chancellor and Senate also have the power of admitting, by special grace, Graduates of other Universities to similar and equal degrees.

In order to obtain a degree or diploma in the Queen's University it is necessary to enter the College as a Matriculated Student, to pass the entrance or Matriculation Examination, and to pursue a fixed course of study.

The Matriculated Students may be classified as follow:—

I.	Those intending to proceed to the		Degrees of A.B. and A.M.
II.	,,	,,	Degree of M.D.
III.	,,	,,	Diploma of Elementary Law.
IV.	,,	,,	Degrees of LL.B. and LL.D.
V.	,,	,,	Diploma of Civil Engineering.
VI.	,,	,,	Diploma of Surgery.

The Senate.

Chancellor.—The Right Honorable George William Frederick Earl of Clarendon, K.G., G.C.B., &c.

Vice-Chancellor.—The Right Hon. Maziere Brady, Lord Chancellor of Ireland, M.R.I.A., &c.

The Right Honorable William Earl of Rosse, K.ST.P., M.R.I.A., &c.

The Right Honorable Francis Blackburne, Lord Justice in Appeal, LL.D., V.C.T.C.D., M.R.I.A.

The Right Honorable David R. Pigot, Lord Chief Baron of the Exchequer, M.R.I.A., &c.

The Rev. P. Shuldham Henry, D.D., President Queen's College, Belfast.

Sir Robert Kane, F.R.S., M.R.I.A., &c., President Queen's College, Cork.

Edward Berwick, Esq., President Queen's College, Galway.

Sir Richard Griffith, Bart., LL.D., M.R.I.A., Commissioner of Public Works.

Sir Dominic J. Corrigan, Bart., M.D., M.R.I.A., Physician in Ordinary to the Queen in Ireland.

Major-General Sir Thomas Aiskew Larcom, R.E., K.C.B., LL.D., F.R.S., M.R.I.A., &c.

James Gibson, A.M., M.R.I.A., Barrister-at-Law.

The Right Honorable James Henry Monahan, Lord Chief Justice of the Common Pleas.

Robert Adams, A.M., M.D.

Thomas A. Shillington, Esq., J.P.

The Right Honorable Sir Robert Peel, Bart., M.P.

Secretary.—G. Johnstone Stoney, M.A.—Office, Dublin Castle.

The Senate holds its sitting in Dublin Castle, where the examinations of the students of the three Colleges, for Graduation and University Exhibitions, are annually conducted by Examiners appointed by the Senate from year to year.

APPENDIX, No. 2.

RETURN of the NUMBER of STUDENTS attending each CLASS in the Queen's College, Belfast, in each Year.

CLASS.	SESSION.							
	1849-50	'50-51.	'51-52.	'52-53.	'53-54.	'54-55.	'55-56.	'56-57.
Greek—1st year,	71	47	28	16	21	26	29	24
,, 2nd ,,	–	27	18	7	11	12	14	12
,, Higher,	–	–	–	–	–	–	–	–
Latin—1st year,	63	45	27	19	21	24	27	19
,, 2nd ,,	–	27	17	6	11	11	13	10
,, Higher,	–	–	–	–	–	–	–	–
The English Language,	52	46	28	20	24	28	31	24
History and English Literature, Senior ,, ,,	–	–	25	15	20	16	20	19
Modern Languages (French, German, Italian),	62	36	41	27	34	37	29	40
Senior ,,	–	20	28	16	15	15	19	12
The Celtic Languages,	*The Lectures in each Session open to the Public.*							–
Mathematics—1st year,	86	58	40	25	29	33	30	35
,, 2nd ,,	–	12	11	11	13	11	15	17
,, Higher,	–	–	–	–	–	–	–	–
Nat. Philosophy—Higher Class,	–	–	–	–	–	6	6	8
,, Mathematical Physics, &c.	32	32	46	24	29	23	24	19
,, Experimental Physics,	48	59	57	29	40	34	36	37
,, Practical Mechanics,	7	3	6	3	4	3	3	2
Chemistry,	37	53	63	44	51	60	50	70
Practical Chemistry,	6	7	14	10	15	14	12	10
Laboratory,	–	6	8	8	9	9	10	15
Zoology,	12	34	35	29	31	43	31	43
Botany,	12	49	46	35	37	46	36	44
Physical Geography,	–	–	29	17	21	19	20	21
Logic,	3	–	27	17	21	26	20	27
Metaphysics,	–	–	18	15	16	11	17	20
Higher Logic and Metaphysics,	–	–	6	7	7	8	6	7
Mineralogy and Geology,	*Public.*	6	14	13	15	13	9	20
Surveying,	10	9	9	6	6	9	4	–
Civil Engineering,	–	4	6	3	4	3	4	17
Theory of Agriculture,	11	8	7	2	6	5	5	4
Practice of Agriculture,	–	5	3	2	5	5	1	1
Diseases of Farm Animals,	–	5	3	2	5	5	1	1
Medical Jurisprudence,	2	8	14	10	13	8	10	15
Anatomy,	25	36	48	45	44	51	44	39
Practical Anatomy,	27	32	35	49	41	46	33	33
Practice of Medicine,	9	17	17	12	15	18	33	27
Practice of Surgery,	24	15	26	29	28	30	48	32
Materia Medica,	11	14	16	17	17	23	25	11
Midwifery,	14	10	12	16	17	18	24	13
Law of Property, Equity of Bankruptcy, Common and Criminal Law, Evidence and Pleading,	17	16	17	15	11	5	10	14
Jurisprudence and Political Economy, Arts,	–	–	12	2	9	6	8	2
Civil Law,	11	11	13	8	10	5	9	10
Constitutional, Colonial, and International Law, Jurisprudence,	–	–	–	–	–	–	–	–
Arabic,	–	–	–	–	–	–	–	–
Hindustani,	–	–	–	–	–	–	–	–
Sanskrit,	–	–	–	–	–	–	–	–

APPENDIX, No. 2—*continued.*

RETURN of the NUMBER of STUDENTS attending each CLASS in the Queen's College, Belfast, in each Year—*continued.*

CLASS.	SESSION.								
	'57–58.	'58–59.	'59–60.	'60–61.	'61–62.	'62–63.	'63–64.	'64–65.	'65–66.
Greek—1st year,	31	36	45	69	81	83	66	79	63
,, 2nd ,,	13	17	23	25	49	63	44	40	49
,, Higher,	–	5	4	4	7	7	9	12	6
Latin—1st year,	33	34	46	69	84	83	65	78	64
,, 2nd ,,	11	18	22	23	49	60	40	33	44
,, Higher,	–	2	3	2	6	6	8	7	4
The English Language,	36	41	49	72	85	85	70	80	67
History,	20	24	24	28	5	8	6	4	4
English Literature,					30	41	52	48	42
Modern Languages (French, German, Italian),	40	50	76	140	124	110	99	110	115
Senior ,,	16	13	17	10	54	43	26	36	36
The Celtic Languages,	*The Lectures in each Session open to the Public.*						–	–	–
Mathematics—1st year,	39	45	61	83	93	102	85	92	75
,, 2nd ,,	16	14	13	13	13	15	20	17	19
,, Higher,	–	4	6	3	–	5	6	4	4
Nat. Philosophy—Higher Class,	7	4	9	–	–	–	–	5	4
,, Mathematical Physics, &c.	26	25	24	64	67	72	69	60	68
,, Experimental Physics,	41	28	42	87	86	94	95	87	120
Natural Philosophy applied,	7	3	4	4	–	2	5	6	7
Chemistry,	60	74	81	64*	89	89	81	93	95
Practical Chemistry,	11	14	21	21	20	24	28	44	–§
Laboratory,	10	11	10	12	15	15	8	14	16
Zoology,	34	63	56	37*	57	66	90	82	84
Botany,	34	62	55	40*	56	62	90	92	–§
Physical Geography,	28	23	28	30	7†	7	–	–	–
Logic,	22	29	29	35	65	66	57	49	68
Metaphysics,	15	19	15	24	22	34	40	40	41
Higher Logic,	9	8	–	–	10	12	25	14	24
Mineralogy and Geology,	13	11	16	7‡	11	10	12	14	15
Engineering, 1st year,	7	7	12	9	10	11	15	15	14
Engineering, 2nd year, lectures,	7	3	4	4	6	11	8	12	10
Engineering, 2nd year, practice,								12	9
Engineering, 3rd year, lectures,	–	–	–	–	–	3	7	7	7
Engineering, 3rd year, practice,								7	7
Theory of Agriculture,	7	7	7	6	6	6	–	–	–
Practice of Agriculture,	3	1	4	3	1	–	–	–	–
Diseases of Farm Animals,	4	2	3	2	1	–	–	–	–
Medical Jurisprudence,	16	13	17	14	18	16	25	30	28
Anatomy,	39	59	60	86	83	83	87	99	109
Practical Anatomy,	41	44	62	80	85	91	96	126	124
Practice of Medicine,	19	22	29	25	42	27	36	44	48
Practice of Surgery,	30	29	39	51	53	53	46	48	55
Materia Medica,	18	22	27	33	38	37	29	38	47
Midwifery,	7	17	14	26	36	22	34	19	23
Law of Property, Equity and Bankruptcy, Common and Criminal Law, Evidence and Pleading,	12	13	16	16	14	12	12	14	19
Political Economy, Arts,	18	9	7	10	8	18	17	20	15
Civil Law; Constitutional, Colonial, and International Law; Jurisprudence,	10	11	17	10	12	11	10	11	19
Arabic,	–	–	1	–	–	–	–	–	–
Hindustani,	–	–	2	3	2	3	–	–	–
Sanskrit,	–	–	6	3	4	5	4	4	–
Operative Surgery,	–	–	–	–	–	11	2	–	2

* No Arts Students this Session, owing to change of Statutes.
† Not now required in third year Arts.
‡ No Engineering Students this Session, owing to change of Statutes.
§ Classes not yet formed.

APPENDIX,

Return of the Amount of Fees received by each

Professor of	1849–50.	1850–51.	1851–52.	1852–53.	1853–54.	1854–55.	1855–56.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Greek,	*88 10 0	83 0 0	50 0 0	27 5 0	38 5 0	46 5 0	51 15 0
Latin,	*73 15 0	79 0 0	50 10 0	31 5 0	38 5 0	44 5 0	47 15 0
English History and Literature,	50 5 0	50 5 0	47 10 0	31 5 0	43 5 0	45 5 0	59 5 0
Logic & Metaphysics,	6 0 0	–	† 59 5 0	34 5 0	37 15 0	41 0 0	41 15 0
Mathematics,	116 15 0	97 10 0	69 15 0	43 0 0	54 10 0	59 0 0	60 10 0
Natural Philosophy,	79 5 0	70 15 0	99 10 0	47 0 0	73 15 0	76 15 0	59 10 0
Chemistry, Practical Chemistry	85 5 0	104 0 0	117 5 0	91 10 0	111 10 0	131 15 0	105 10 0
Anatomy and Physiology, Practical Anatomy,	143 0 0	170 0 0	195 15 0	230 10 0	228 0 0	250 0 0	256 0 0
Natural History and Botany,	20 10 0	69 0 0	70 15 0	50 15 0	55 0 0	76 15 0	59 10 0
Modern Languages,	97 0 0	84 0 0	63 0 0	50 0 0	61 0 0	85 0 0	74 0 0
Mineralogy and Geology,	–	7 10 0	24 15 0	17 15 0	20 15 0	18 0 0	12 10 0
Jurisprudence and Political Economy,	20 0 0	21 0 0	35 15 0	18 15 0	28 0 0	14 10 0	29 5 0
English Law,	32 0 0	29 0 0	37 0 0	23 0 0	20 0 0	16 0 0	21 0 0
Civil Engineering,	16 0 0	24 10 0	22 0 0	14 0 0	17 15 0	21 0 0	13 10 0
Agriculture and Medical Jurisprudence,	15 10 0	41 0 0	49 5 0	22 0 0	46 0 0	32 15 0	26 0 0
Practice of Medicine,	17 0 0	31 0 0	32 0 0	18 0 0	30 0 0	30 0 0	56 0 0
Surgery,	41 0 0	21 10 0	36 0 0	51 0 0	43 0 0	43 0 0	74 0 0
Materia Medica,	22 0 0	28 0 0	26 0 0	29 0 0	33 0 0	43 0 0	45 0 0
Midwifery,	28 0 0	18 0 0	22 0 0	27 0 0	31 0 0	33 0 0	44 0 0
Teacher of Drawing,	–	–	–	–	–	–	–

* In the Session of 1849–50, Medical Students were required to attend the Greek and Latin Classes, but have since been exempt from attending either class.

† Professor M'Cosh was appointed in Session 1851–52, and taught and received fees from Students properly belonging to the previous Session.

Queen's College, Belfast, March, 1866.

Appendix, No. 4.

Expenditure of One Year's Additional Grant.

APPENDIX,

Account of the Expenditure of One Year's Additional Grant

1. Library of Ancient and Modern Literature and Philology:

	£	s.	d.
Ancient Classical Languages and Philology,	38	6	9
English History and Literature,	26	8	3
Foreign Modern Languages,	17	7	0
Works of General Interest, &c.,	82	18	0
	165	0	0

2. Libraries, Museum, &c., Mathematical, Physical, and Chemical Sciences:

	£	s.	d.
Mathematical and Physical Libraries,	20	9	8
Chemical Library,	22	16	11
Museum and Cabinet of Physical Science,	28	12	2
,, Laboratory, Chemical Science,	39	19	1
	111	17	10

No. 3.

Professor in the Queen's College, Belfast, in each Year.

1856–57.	1857–58.	1858–59.	1859–60.	1860–61.	1861–62.	1862–63.	1863–64.	1864–65.	1865–66.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
44 15 0	51 0 0	78 0 0	*93 5 0	*131 15 0	*186 0 0	*187 15 0	*221 0 0	233 10 0	212 0 0
39 15 0	53 0 0	67 0 0	†90 0 0	127 15 0	185 0 0	185 15 0	211 0 0	220 10 0	202 0 0
43 15 0	57 10 0	69 0 0	94 15 0	117 5 0	155 10 0	164 5 0	163 10 0	162 10 0	131 10 0
48 5 0	46 15 0	68 10 0	39 0 0	58 10 0	106 5 0	134 10 0	173 10 0	143 0 0	183 10 0
62 15 0	69 10 0	97 10 0	139 10 0	156 0 0	183 5 0	211 5 0	201 0 0	208 0 0	173 0 0
62 15 0	72 0 0	66 10 0	61 5 0	180 10 0	178 15 0	194 10 0	183 0 0	186 0 0	208 0 0
133 0 0	113 10 0	147 5 0	184 0 0	167 0 0	195 15 0	210 5 0	213 10 0	264 10 0	‖165 0 0
181 0 0	206 0 0	262 10 0	307 0 0	427 10 0	‡432 10 0	‡425 10 0	‡453 10 0	567 10 0	544 0 0
56 0 0	52 10 0	105 5 0	94 10 0	70 0 0	96 10 0	120 5 0	157 0 0	170 0 0	144 0 0
86 0 0	96 0 0	120 0 0	159 10 0	277 0 0	319 5 0	270 15 0	231 0 0	278 0 0	247 0 0
37 0 0	20 5 0	21 15 0	24 15 0	11 10 0	16 5 0	20 10 10	22 0 0	25 0 0	24 0 0
22 10 0	31 15 0	28 10 0	36 10 0	28 10 0	25 15 0	37 10 0	38 0 0	51 0 0	51 0 0
27 0 0	21 0 0	25 0 0	28 0 0	28 0 0	25 0 0	21 0 0	18 0 0	20 0 0	25 0 0
27 0 0	22 0 0	22 15 0	24 15 0	32 0 0	40 15 0	70 0 0	82 0 0	97 0 0	79 0 0
25 10 0	40 5 0	31 5 0	47 0 0	43 0 0	§44 0 0	§36 15 0	48 0 0	55 0 0	48 0 0
43 10 0	26 0 0	37 0 0	44 0 0	37 0 0	64 10 0	46 0 0	59 0 0	74 0 0	77 0 0
42 10 0	34 0 0	46 0 0	65 10 0	79 13 0	84 12 0	96 11 0	73 0 0	82 0 0	94 0 0
20 0 0	34 0 0	39 0 0	50 0 0	60 0 0	69 0 0	70 0 0	59 0 0	73 0 0	83 0 0
24 0 0	12 0 0	28 0 0	25 0 0	48 0 0	63 0 0	36 0 0	66 0 0	36 0 0	42 0 0
32 0 0	25 0 0	26 0 0	22 0 0	–	–	–	–	–	–

* Besides for Sanskrit and Hindustani 1859–60, £35; 1860–61, £22 10*s.*; 1861–62, £25; 1862–63, £32 10*s.*; 1863–64, £20; 1864–5, £20.

† Besides for Arabic in 1859–60, £5.

‡ The Professor of Anatomy pays to his Demonstrator a portion of the fees for Practical Anatomy.

§ No endowment for Medical Jurisprudence. Professor Hodges delivers the lectures, receiving only class fees.

‖ Practical Chemistry fees not yet received—Class not yet opened.

ALEXANDER DICKEY, *Bursar.*

No. 4.

Appendix, No. 4.

to the Queen's College, Belfast, ending 31st March, 1865.

Expenditure of One Year's Additional Grant.

3. Libraries, Museum, and Collection of Objects of the Department of the Natural Sciences:

	£	s.	d.
Library of Natural History,	13	10	1
,, Geology and Mineralogy,	21	14	1
Museum of Natural History,	41	9	9
,, Geology and Mineralogy,	44	10	7
	121	4	6

4. Libraries, Museums, and Collections of Objects of the Departments of Engineering and Agriculture:

Library of Engineering,	13	2	0
Instruments and Collections of Engineering,	32	1	0
	45	3	0

Appendix, No. 4.

Expenditure of One Year's Additional Grant.

APPENDIX, No. 4—*continued.*

ACCOUNT of the EXPENDITURE of ONE YEAR'S ADDITIONAL GRANT to the Queen's College, Belfast, ending 31st March, 1865—*continued.*

5. Museum and Library of Medical Science:

	£	s.	d.
Library of Medical Works,	56	9	6
Anatomical and Pathological Museums, and Rent of Anatomical Rooms,	77	15	11
Surgical Museum,	3	16	6
Medical Jurisprudence,	25	1	0
	163	2	11

6. Library of Metaphysical, Legal, and Economical Science:

Law, Jurisprudence, and Political Economy,	9	14	1
Metaphysics,	27	7	7
	37	1	8

7. Printing, Stationery, Advertising, Postages, Office Expenses, &c.,	298	11	2
8. Heating and Lighting,	134	11	1
9. Grounds, £48 7*s.* 6*d.*; Plants, £10,	58	7	6
	1,134	19	8
Balance in Bank of Ireland Office, 31st March, 1865,	318	9	9
Total,	1,453	9	5

Amount of One Year's additional Grant,	1,000	0	0
College and Matriculation Fees,	129	0	0
Received for Calendars and Fines,	6	2	6
Balance in Bank, 31st March, 1864,	318	6	11
Total,	1,453	9	5

The Accounts of the College up to 31st March, 1865, have been examined and found correct by the Commissioners for Auditing the Public Accounts.

March, 1866.

ALEXANDER DICKEY, *Bursar.*

APPENDIX, No. 5.

General Class Examinations, Queen's College, Belfast.

—	Session 1864–65.			A.M.	P.M.	Session 1865–66.			A.M.	P.M.
The English Language,	Saturday,	January	14	—	12—4	Saturday,	January	13	—	12—4
Logic,	Saturday,	February	11	9—12	—	Saturday,	February	10	9—12	—
Physical Geography,	Wednesday,	April	12	9—12	—	Wednesday,	February	28	10—1	—
Mineralogy and Geology,	Wednesday,	April	12	—	2—5	Wednesday,	February	28	10—1	—
Zoology,	Saturday,	March	4	9—12	—	Saturday,	March	3	10—1	—
Metaphysics,	Tuesday,	April	11	9—12	and 2—5	Tuesday,	March	27	9—12	and 2—5
English Literature,	Thursday,	April	13	9—12	and 2—5	Thursday,	March	29	9—12	and 2—5
Practical Anatomy,	Saturday,	April	22	9—12	—	Saturday,	April	21	9—12	—
Practice of Medicine,	Wednesday,	April	26	9—12	—	Thursday,	April	26	9—12	—
Midwifery,	Wednesday,	April	26	—	2—5	Thursday,	April	26	—	2—5
Anatomy and Physiology,	Thursday,	April	27	9—12	and 2—5	Friday,	April	27	9—12	and 2—5
Materia Medica,	Friday,	April	28	9—12	—	Saturday,	April	28	9—12	—
Practice of Surgery,	Friday,	April	28	—	2—5	Saturday,	April	28	—	2—5
Medical Jurisprudence,	Saturday,	April	29	—	2—5	Monday,	April	30	9—12	—
Modern Languages,	Tuesday,	May	30	9—12	and 2—5	Tuesday,	May	29	9—12	and 2—5
Greek (First Year),	Wednesday,	May	31	9—12	,, 2—5	Wednesday,	May	30	9—12	,, 2—5
,, (Second Year),	Thursday,	June	1	9—12	,, 2—5	Thursday,	May	31	9—12	,, 2—5
Latin (First Year),	Thursday,	June	1	9—12	,, 2—5	Thursday,	May	31	9—12	,, 2—5
,, (Second Year),	Wednesday,	May	31	9—12	,, 2—5	Wednesday,	May	30	9—12	,, 2—5
Engineering, 1st, 2nd, and 3rd years,	Thursday,	June	1	9—12	,, 2—5	Thursday,	May	31	9—12	,, 2—5
Office and Fieldwork,						Wednesday,	May	30	—	2—5
Mathematics,	Friday,	June	2	9—12	,, 2—5	Friday,	June	1	9—12	and 2—5
Natural Philosophy,	Saturday,	June	3	9—12	,, 2—5	Saturday,	June	2	9—12	,, 2—5
Chemistry,	Monday,	June	5	9—12	,, 2—5	Monday,	June	4	9—12	,, 2—5
History,	Tuesday,	June	6	9—12	—	Tuesday,	June	5	—	2—5

General Examination of Students in Law, and also of other Students in Political Economy, Botany, and Practical Chemistry at the close of the Lectures on these subjects.

APPENDIX, No. 6.

RETURN of the NUMBER of LECTURES delivered by each Professor in the Queen's College, Belfast, in each YEAR.

—	1849-50.	'50-51.	'51-52.	'52-53.	'53-54.	'54-55.	'55-56.	'56-57.	'57-58.	'58-59.	'59-60.	'60-61.	'61-62.	'62-63.	'63-64.	'64-65.	REMARKS.
Professor of—Greek,	135	232	244	246	236	240	234	235	236	350	500*	460*	440*	360*	360	360	In addition, examining numerous exercises.
Latin,	162	197	216	221	189	196	232	230	230	275	398	234	234	234	230	324	Do. do.
History and English Literature,	35	55	98	91	104	100	105	105	99	110	123	92	154	146	140	167	Besides correcting about 700 exercises.
Modern Languages,	208	330	324	307	306	305	319	340	369	307	340	372	372	360	356	356	
Celtic,	6	6	6	6	6	6	6	6	6	6	6	6	–	–	–	–	Open to the Public without charge.
Mathematics,	135	256	333	248	246	320	346	322	330	400	400	370	370	316	325	330	Besides three hours each week on which the Senior Scholar meets the Junior Division.
Natural Philosophy,	122	257	233	209	256	250	255	307	300	300	242	242	213	182	180	180	In addition, arranging apparatus, which occupies as much time as the lectures.
Chemistry,	134	136	137	129	132	130	138	142	142	140	132	132	132	132	130	130	In addition, superintending the working pupils, of whom from eight to twelve are admitted each year by examination to the laboratory without charge.
Practical Chemistry,	36	36	36	36	36	36	36	36	34	36	36	36	36	36	36	36	
Natural History,	120	120	133	137	139	138	142	140	143	140	140	140	140	140	140	140	Including lectures in Physical Geography, delivered free to all students.
Mineralogy and Geology,	*Public.*	86	54	59	54	55	49	59	52	52	52	52	52	52	52	52	In addition, daily attendance as Curator in the Museum.
Logic and Metaphysics,	–	–	78	142	176	175	164	177	179	167	140	158	194	208	195	195	In addition, criticising above 600 essays in each session.
Civil Engineering,	134	138	140	186	140	136	147	118	100	194	196	220	198	328	319	236	Including practical work under the direction of the Professor.
Agriculture,	172	206	205	212	209	213	218	186	190	166	166	156	156	50	50	50	Including lectures on Medical Jurisprudence, for

Mineralogy and Geology,	*Public.*	86	54	59	54	55	49	59	52	52	52	52	52	52	52	52	In addition, daily attendance as Curator in the Museum.
Logic and Metaphysics,	–	–	78	142	176	175	164	177	179	167	140	158	194	208	195	195	In addition, criticising above 600 essays in each session.
Civil Engineering,	134	138	140	136	140	136	147	118	100*	194	196	220	198	328	319	236	Including practical work under the direction of the Professor.
Agriculture,	172	206	205	212	209	213	218	186	190	166	166	156	156	50	50	50	Including lectures on Medical Jurisprudence, for which there is no salary.
Anatomy & Physiology,	115	116	115	115	114	115	117	113	115	115	115	112	108	108	224	261	In addition, daily practical teaching in the dissecting-room for three hours by the Professor, and four hours by his assistant.
Practice of Medicine,	93	93	92	92	93	94	94	85	75	95	95	95	95	95	95	95	
Practice of Surgery,	93	94	93	91	91	92	94	94	94	94	94	94	94	93	93	93	Besides about twenty-five lectures each session on Operative Surgery.
Materia Medica,	92	91	91	93	90	90	92	80	84	84	84	84	84	84	84	84	
Midwifery,	92	92	92	91	90	93	93	93	93	95	90	80	80	76	76	76	Besides practical instruction to students which may be required at any hour throughout the year.
English Law,	24	48	72	96	96	96	96	96	96	96	72	72	96	96	96	96	No third year Class in 1859–60, or fourth year Class in 1860–61.
Jurisprudence and Political Economy,	24	48	96	120	120	120	120	120	120	96	120	120	120	120	120	120	

The above Return gives the number of Meetings of one hour each, in each Class. The system of instruction includes, not merely formal Lectures, but also examination in the business of the course; in some classes these examinations are held daily; in others on fixed days of the week, according to the nature of the subject.
The Professors also conduct the General Scholarship Examinations; and some of them, in addition, the Matriculation and Supplemental Examinations.

* Including about 110 on Sanskrit and Hindustani.

October Examinations of Queen's College, Belfast, 1865.

Days.	Hours.	First Year Students.	Second Year Students.	Third Year Students.	Fourth Year Students.
Tuesday, Oct. 16.	9—12		Suppl. Ex. { English. Mod. Lang. Math.	Suppl. Ex.—Mod. Lang., Math., Nat. Phil.	Senior Schol.—Latin.
	2—5		Suppl. Ex.—Greek, Latin.	Suppl. Ex.—Greek, Latin, Logic.	Senior Schol.—Latin.
Wednesday, Oct. 17.	9—12		Liter. Schol.—Greek.		Senior Schol.—Greek.
	2—5		Liter. Schol.—Greek.		Senior Schol.—Greek.
Thursday, Oct. 18.	9—12		Med. Engin. } Schol.—Chem.	Previous	Senior Schol.—Chem.
	2—5	Matric.—Math.	Med. Engin. } Schol.—Chem.	Examination,	Senior Schol.—Chem.
Friday, Oct. 19.	9—12	Matric.—Greek, Latin.		in Arts	
	2—5			and Engineering,	
Saturday, Oct. 20.	9—12	Matric.—English, *in Arts only.*		of	Senior Schol.—Mod. Hist.
	2—5	Matric.—English, *in Medicine, &c.*		Queen's University.	Senior Schol.—Mod. Hist.
Monday, Oct. 22.	9—12		Med. Schol.—Botany.	Engin. Schol. { Geol. and Phys. Geog.	Senior Schol.—Nat. Hist.
	2—5	Lists of Matriculated Students to be made out.	Med. Schol.—Zoology. Liter. Schol.—English.		Senior Schol.—Nat. Hist.

Saturday, Oct. 20.	9—12	Matric.—English, *in Arts only.*			
	2—5	Matric.—English, *in Medicine, &c.*			
Monday, Oct. 22.	9—12		Med. Schol.—Botany.	Engin. Schol. {Geol. and Phys. Geog.	Senior Schol.—Nat. Hist.
	2—5	Lists of Matriculated Students to be made out.	Med. Schol.—Zoology. Liter. Schol.—English.		Senior Schol.—Nat. Hist.
Tuesday, Oct. 23.	9—12	Science, Med., Engin. } Schol.—Math.	Science, Engin. } Schol.—Math.	Engin. Schol.—Math.	Senior Schol.—Math.
	2—5	Science, Med., Engin. } Schol.—Math.	Science, Engin. } Schol.—Math. Med. Schol.—Anat. and Phys.	Engin. Schol.—Math. Med. Schol.—Anat. and Phys.	Senior Schol.—Math. Med. Schol.—Prac. of Midw.
Wednesday, Oct. 24.	9—12			Med. Schol.—Prac. Chem.	Senior Schol.—Nat. Phil. Med. Schol.—Prac. of Med.
	2—5	Liter., Med. } Schol.—English.	Engin. Schol.—Exp. Phys.	Engin. Schol.—Nat. Phil.	Senior Schol.—Nat. Phil.
Thursday, Oct. 25.	9—12	Liter., Med. } Schol.—Latin.	Liter. Schol.—Latin. Engin. Schol.—Geo. Draw.	Engin. Schol.—C. Engin. Med. Schol.—Mat. Med.	Med. Schol.—Med. Jur. Senior Schol.—Pol. Econ.
	2—5	Liter., Med. } Schol.—Latin.	Liter. Schol.—Latin. Engin. Schol.—Geo. Draw.	Engin. Schol.—C. Engin.	Senior Schol.—Pol. Econ. Med. Schol.—Surg. Anat.
Friday, Oct. 26.	9—12	Liter., Med. } Schol.—Greek.	Liter. Schol.—Mod. Lang.		Senior Schol.—Mod. Lang. Senior Schol.—Metaph. Med. Schol.—Anatomy.
	2—5	Liter., Med. } Schol.—Greek.	Liter. Schol.—Mod. Lang.		Senior Schol.—Mod. Lang. Senior Schol.—Metaph. Med. Schol.—Physiology.

Students passing the Supplementary Examinations complete the previous year, and take rank accordingly.

Hours of Lectures,—Session 1865-66

Hours.	Arts.			Civil Engineering.			Medicine.	
	1st Year.	2nd Year.	3rd Year.	1st Year.	2nd Year.	3rd Year.		
9 till 10	*French.* Monday Wednesday Thursday *German.* Tuesday Friday	*Mathematics.* Monday Tuesday Wednesday Thursday Friday		*French.* Monday Wednesday Thursday *German.* Tuesday Friday	*Mathematics.* Monday Tuesday Wednesday Thursday Friday			
10 till 11	*Mathematics.* Monday Tuesday Wednesday Thursday Friday	*French.* Monday Wednesday Thursday *German.* Tuesday Friday	*Honor Classes.*	*Mathematics.* Monday Tuesday Wednesday Thursday Friday				
11 till 12	*Latin.* Monday Wednesday Friday	*Nat. Philos.* *Exp. Phys.* Monday Wednesday Friday *Mat. Phys.* Tuesday Thursday	*Eng. Lit.* Monday Wednesday Friday	*Exp. Phys.* Monday Wednesday Friday *Geom. Drawing.* Tuesday Thursday	*Mineralogy and Geology.* Monday Wednesday Friday *Mat. Phys.* Tuesday Thursday	*Office and Field Work.* Tuesday Thursday	*Exp. Phys.* *3 months.* Monday Wednesday Friday	*Prac. Chem.* [*see below.* Summer Medical Classes.]
12 till 1	*Greek.* Monday Thursday Friday	*Latin.* Monday Wednesday Friday	*Metaphysics.* Tuesday Wednesday Thursday Friday *History.* Monday Wednesday Friday	*Geom. Drawing, and Office Work.* Tuesday Thursday	*Office and Field Work.* Tuesday Thursday	*Office and Field Work.* Tuesday Thursday	*Anatomical Demonstrations.* Monday Tuesday Wednesday Thursday Friday	
1 till 2	*Greek.* Monday Thursday Friday	*Zool. to Mar. 1.* Monday Tuesday Wednesday Friday *Bot. from May 1.* Monday	*Civil Eng.* Monday Wednesday	*Nat. Philos. applied.* Tuesday Thursday	*Zool. to Mar. 1.* Monday Tuesday Wednesday Friday	*Bot. from May 1.* Monday Tuesday Wednesday Thursday Friday.	*Surgery.* Monday Tuesday Wednesday Thursday	*Med. Juris.* Friday

1 till 2		*Greek.* Monday Thursday Friday	*Zool. to Mar.* 1. Monday Tuesday Wednesday Friday *Bot. from May* 1. Monday Tuesday Wednesday Thursday Friday		*Civil Eng.* Monday Wednesday	*Nat. Philos. applied.* Tuesday Thursday	*Zool. to Mar.* 1. Monday Tuesday Wednesday Friday	*Bot. from May* 1. Monday Tuesday Wednesday Thursday Friday	*Surgery.* Monday Tuesday Wednesday Thursday	*Med. Juris.* Friday
2 till 3	*English.* Monday Tuesday Wednesday Friday	*Logic.* Tuesday Wednesday Thursday Friday	*Pol. Economy.* Tuesday Thursday Friday			*Civil and Mech. Eng.* Monday Wednesday			*Anatomy.* Monday Tuesday Wednesday Thursday Friday	Examination on Fridays at 4 o'clock.
3 till 4			*Chemistry.* Monday Tuesday Wednesday Thursday Friday	*Chemistry.* Monday Tuesday Wednesday Thursday Friday	Field Work and Engineering Excursions and additional Lectures for 2nd and 3rd Year Students occasionally on Fridays and Saturdays for some hours.			*Chemistry.* Mon. Tues. Wed. Thur. Fri. } *after May* 1 *from* 2 *till* 3.	*Midwifery.* Monday Tuesday Thursday	*Medical Jurisprud.* Wednesday
4 till 5			Chemical Laboratory open from 9, A.M., till 3, P.M.					*French.* Monday Thursday or from 9-10, A.M.	*Materia Med.* Monday Tuesday Wednesday Thursday	*Prac. Med.* Monday Tuesday Wednesday Thursday

SUMMER MEDICAL CLASSES, COMMENCING MAY 1, 1866.

Practical Chemistry, ... Monday, Tuesday, Wednesday, Thursday, Friday, from 11 A.M. till 1 P.M.
Botany, ... Monday, Tuesday, Wednesday, Thursday, Friday, from 1 till 2 P.M.

FACULTY OF LAW.—HOURS OF LECTURES.

1st Year.				2nd Year.				3rd Year.		4th Year.					
6 o'clock, P.M.	*Law of Property.* Monday Wednesday Friday	7 o'clock, P.M.	*Jurisprudence.* Monday Wednesday Friday	7 o'clock, P.M.	*Equity and Bankruptcy.* Monday Wednesday Friday	8 o'clock, P.M.	*Civil Law.* Monday Wednesday Friday	11 o'clock, A.M.	*Common and Criminal Law.* Tuesday Thursday Saturday	10 o'clock, A.M.	*Evidence and Pleading.* Tuesday Thursday Saturday	6 o'clock, P.M.	*Constitutional & Colonial Law.* Monday Wednesday Friday	1&30'clock, P.M.	*Medical Jurisprudence.* Wednesday, 3 o'clock Friday, 1 o'clock

Appendix, No. 7.

Digest of Subjects and Courses.

APPENDIX, No. 7.

An Enlarged Digest of Subjects and Courses pursued in Queen's College, Belfast.

Greek—*Professor, Charles MacDouall,* ll.d., m.r.a.s.

In the Greek Class, as in all those which are attended during more than one session, the business, as well as the hours assigned to the Students of the different years, is necessarily different; but it is always distributed into three simultaneous processes, viz., public examinations, lectures more or less formal, and exercises written at home and commented on in the class.

In the first session, the complex and self-contained structure of the Greek language is subjected to a close analysis; carried out, on the one hand, by tracing words to their crude forms, by classifying terminations, both the primary and the flexional, and by discriminating among analogically correct forms those actually used in different ages and dialects; on the other hand, by exhibiting the methods by which words are combined in simple clauses, clauses are knit into sentences, and sentences compose periods less or more complicated. Some prose-work furnishes the materials for this analysis; while the Students read and translate it, or else re-translate off-hand passages read out in English before them by the Professor. Besides syntactical phænomena, the laws and characteristics of both epic and dramatic versification are expounded and exemplified, while a portion of the *Ilias* and some tragedy are used as text-books.

In the second session, while consecutive passages of Herodotus along with some Attic oration or philosophical treatise, and a portion of the *Odysseia* along with some Attic tragedy or comedy, form the basis of prelections, the previous discipline is continued and extended; the distinctions of dialect and style are more fully elucidated; the origin, growth, and fortunes of the epos, the drama, history, and other departments of literature, are more distinctly unfolded; discussions on points of mythology, geography, chronology, archæology, æsthetics, &c., are more freely introduced and more amply treated. The Students are required to turn Herodotean Greek, at sight, into Attic, altering both the forms of words and the structure of sentences; to re-translate passages into Greek prose and verse; and also to give in original essays in both forms of composition.

Considering the variety of subjects which enter simultaneously into the first and second Sessions of the Collegiate Course, the Students generally appear to give a fair share of their attention to the Greek Language and Literature. Several times in the week a considerable number voluntarily attend extra Lectures, at which no note is taken of their presence or of their absence.

In a distinct or higher class, advanced Students, generally in the third or fourth year of their Course, are exercised in the study of more difficult works than those previously read, in the higher problems of criticism and philology, and especially in composing both prose and verse.

The following text-books have been used in the successive Sessions of College from 1849–50 to 1865–66:—*Ilias*, Books III., VI., X., and from XI. to XXIV. (inclusive); *Odysseia*, Books I., II., III., IV., V., XI., XII., XIII., XIV.; Hesiodus, *Theogonia;* Pindarus, *Olympia*, *Pythia*, *Nemea;* Aeschylus, all the Tragedies except the *Supplices;* Sophocles, the seven Tragedies; Euripides, *Alcestis*, *Hippolytus*, *Hecabe*, *Phoenissae*, *Orestes*, *Helene*, *Hercules furens*, *Bacchae*, *Ion*, *Andromache*, *Iphigeneia in Aulide*, *Iphigeneia in Tauris;* Aristophanes, *Nubes*, *Aves*, *Ranae;* Herodotus, Books I., II., IV., VII.; Thucydides, Books I., II.; Xenophon, Portions of *Anabasis* and *Cyropaedeia;* Platon, *Apologia Socratis*, *Gorgias*, *Phaedon*, *Phaedrus*, *Philebus*, *Protagoras*, *Timaeus*, *Theaetetus*, and Book VII. of *Respublica;* Aristoteles, *Poetica* and portions of *Rhetorica;* Demosthenes, *c. Meidiam* and *de Corona;* Aeschines, *in Ctesiphontem.*

Sanskrit and Hindustani.

The Classes for these Languages (conducted by the Professor of Greek) are at present attended chiefly by Students who either have already obtained or are preparing to compete for Appointments in the Indian Service; but the Sanskrit

Class begins to attract others also, as the importance of some practical acquaintance with Sanskrit, especially in relation to Classical Studies and to Comparative Philology, is now generally recognised. *Appendix, No. 7.*

Either Class may be attended separately; or a two years' Course may be taken, in which Sanskrit alone is studied during the first year, while Sanskrit and Hindustani (including the elements of Persic) occupy the second. Digest of Subjects and Courses.

LATIN—*Professor, William Nesbitt,* M.A.

The Professor of Latin lectures Students of the First and Second Years each set three hours a week; attendance on the lectures being compulsory for those who take the Classes of Latin. Besides these compulsory lectures, he gives two lectures additional to Students of each of these years, attendance on which is voluntary, in which more difficult authors are read, and special attention is paid to composition. The attendance on these lectures is very good.

An honor Class has been formed of Students of the Third and Fourth Years, chiefly attended by those who are anxious to distinguish themselves in Ancient Classics at the Degree Examination.

In addition to the above, two lectures are delivered weekly on Latin composition.

The number of hours during which the Professor lectures each week is fourteen.

HISTORY AND ENGLISH LITERATURE—*Professor, George Lillie Craik,* LL.D.

Class of the English Language.

The business of this Class is conducted by—

A Course of Lectures on the Origin, Growth, and Revolutions of the Language from the earliest times to the present day;

A Course of less formal Expositions of the constitution of the Language, delivered partly at a succession of voluntary meetings in the Second Term (which have usually been attended by a large proportion of the Class);

Daily Examinations on the text-book—Craik's "Outlines of the History of the English Language;"

Critical Readings of "Specimens" at the end of the text-book;

Weekly Essays in English composition.

Class of English Literature.

The business of this Class is conducted by—

A Course of Lectures on Literature, regarded as one of the Forms or Departments of the Artistic;

Occasional Lectures on portions of the History of English Literature;

Examinations on the text-book—Craik's "Manual of English Literature;"

Written Essays every fortnight throughout the Second Term;

Critical Reading of Shakespeare's Julius Cæsar, with exposition of the artistic conduct and characteristics of the play; followed by such further critical readings as the time will allow.

In the last Session (1864–65) a Course of Expositions on the Fifth edition of Latham's English Language.

Class of History.

The business of this class is conducted by—

A Course of Lectures on the Science of History, embracing the nature, definition, attractions, and recommendations of the study, the subject of historic evidence, the various theories of historic prognostication, the method of studying history, &c.;

A few Lectures on the historical development of the English Constitution;

A rapid exposition of the outlines of Historic Geography;

Appendix, No. 7.

Digest of Subjects and Courses.

A more extended exposition of the principles of Chronological Science;
A survey of the history of modern Europe, and of the formation and growth of its principal States from the overthrow of the Western Roman Empire.
The Professor also superintends the historic studies of the Senior Scholar in History and Modern Languages.

MODERN LANGUAGES—*Professor, Albert Ludwig Meissner*, PH.D.

The instruction in Modern Continental Languages embraces three courses each for French and German, extending over three terms, and a course of Italian during the first term, attendance on which is voluntary.

No entrance examination is as yet held in Modern Languages, in consequence of which the insufficiency of intermediate teaching is more apparent in this department than perhaps in any other.

Students in Arts and Medicine, and in the department of Engineering, are required to attend lectures on one Modern Language for one session. The majority select for this purpose the French language; several, however, attend both French and German. For Students in Arts of the second and higher years, Modern Languages form one in a group of four subjects, out of which they select two.

The work of the classes, especially during the first two years, is carried on to a great extent by means of *vivâ voce* questions and answers. Frequent oral examinations are held, and at each meeting of the classes a passage is translated from English into French or German.

In the First Session the Grammar is explained, and select passages are translated from French and German Classics.

In the Second Session a more extended course of the Grammar is gone through, and the Students are made acquainted with the principal authors of French and German Literature.

The first term of the Third Session is devoted to a repetition of the two preceding courses, together with Examinations on the History of French and German Literature. The Text-books are Géruzey and Demogeot for French, and Weber and Vilmar for German. The questions and answers are given and returned in French and German respectively.

In the second term of the Third Session the Professor delivers Lectures in French and German on those periods of Literature with which the Students have already become somewhat familiarized by their previous studies.

In the third term of the Third Session the work of the second is continued, and occasional Lectures are delivered on the principles of Comparative Grammar.

Medical Students unable to attend the classes in Arts, are instructed in a separate class.

About six per cent. of the Students attending Lectures on Modern Languages are Non-Matriculated.

MATHEMATICS—*Professor, John Purser*, M.A.

Attendance on this Class is prescribed to all Students in the Faculty of Arts during the first year of their Course; during the second year Mathematics forms one of four Courses, out of which the Students select two.

All Students in the Department of Engineering are required to attend the Mathematical Classes during two years.

Before entering, Students are required to pass an examination in the First and Second Books of Euclid, and in a small portion of Algebra. Practically they come fairly prepared in the prescribed portions of Euclid, but a large proportion can hardly be said to possess even an elementary knowledge of Algebra. A considerable number of the Students are Candidates for Mathematical Scholar-

ships at entrance, and these are generally well prepared in the first six Books of Euclid, and a considerable portion of Algebra and Plane Trigonometry. *Appendix, No. 7.*

On this account the instruction of the First Year in Mathematics has been given in two Divisions. The Lower Division has been carefully taken through such portions of Euclid I., II., III., IV., VI., as they had not previously prepared, and has received instructions in Algebra as far as the progressions, and in Plane Trigonometry as far as the solution of triangles, with the use of logarithms and trigonometrical tables. The instruction of the Upper Division comprises a complete Course of Algebra and Trigonometry, with the principal historical properties of the Conic Sections, treated geometrically. Digest of Subjects and Courses.

The Council has sanctioned the employment of the Senior Mathematical Scholar in giving a portion of the instruction of the Lower Division. This arrangement, while it affords a greater number of hours to the Lower Division, enables the Professor of Mathematics to give more attention to the Upper Division, and has been found to work very satisfactorily.

In the Second Year the subjects of Lecture are Analytical Geometry, the Differential and Integral Calculus, and the first three sections of the Principia of Newton; and, in addition to this, when the progress of the Students has been sufficiently rapid during the early part of the Session, The Theory of Equations, and the solution of the simpler kinds of Differential Equations.

For several years past a third and higher class has been formed for the benefit of the Students competing for University honors and the Indian Civil Service Examinations. The subjects of lecture are Geometry of three dimensions, Differential Equations, and other branches of the higher Mathematics, according to the advance which the Students have made.

THE PHYSICAL CLASSES—*Professor, John Stevelly*, LL.D.

The subjects taught in the Physical Classes are distributed under three subdivisions: Mathematical Physics, Experimental Physics, and Natural Philosophy applied.

The subjects comprised in the Course of Mathematical Physics are—Mechanics (under its several statical and dynamical subdivisions), Hydrostatics, Hydraulics, Pneumatics, Acoustics, Optics, and Astronomy. The Students who attend this class are the Matriculated Students who are seeking a Degree in Arts, the Engineering Students of the Second Year, and Non-Matriculated Students, some of whom are Candidates for the ministry in the Presbyterian Churches. Attendance at the Lectures three days in each week is imperative on all those Students, and one hour in each week is occasionally employed in asking questions from prescribed parts of Galbraith and Haughton's Manual. Two days in the week attendance is optional, when Analytical Mechanics and the higher branches of Physics are taught. In the Lectures, attendance on which is imperative, such mathematical proofs and illustrations only are introduced as a person reasonably prepared in the six first Books of Euclid and Elementary Algebra might easily comprehend. The teaching is by prelection; and although no text-books are prescribed, the ordinary elementary works on the several subjects are pointed out and referred to. At the Lectures, attendance on which is voluntary, the demonstrations and investigations are pursued in a more systematic and mathematical method, so as to require a knowledge of Analytic Geometry, Conic Sections, and the Differential and Integral Calculus. Text-books are used for the guidance of the Students attending these Lectures, who are chiefly those who are intending to compete for Honors. These text-books are Earnshaw's and Todhunter's Statics, Wilson's Dynamics, Tait's Dynamics of a Particle, Miller's Hydrostatics, Lloyd's Optics and Lectures on the Wave Theory of Light, Herschell's Astronomy, and two of Airy's Tracts, with occasional reference to Du Hamel's Cours de Mecanique, and to Poisson's Works.

The Class of Experimental Physics is attended by the same Students, and also by Agricultural Students of the Second Year, and by Medical Students of the Third Year. The subjects of these Lectures are taught entirely without mathematical demonstration, by the aid of experiments, illustrations, drawings,

Appendix, No. 7.

Digest of Subjects and Courses.

and models, and such works as Lardner's Hand-book, Golding Bird's Physics, Webster's Physics, Miller's Chemistry, Vol. I., Arnott's Elements, Biot, Ganot, Pouillet, Peschel, and such like standard works are referred to, and recommended to the attention of the Students. The subjects of Heat, Electricity, and Electro-Magnetism are at present chiefly taught in the Chemical Class; but the leading facts and principles are taught by selections from Biot, Pouillet, Ganot, and Miller.

The Class of Natural Philosophy applied is intended for Students in Engineering of the Third Year, by the recent University Ordinance; lectures and instructions twice in the week. The subjects embraced are the nature and estimate of work done; the kinds of work required to be done; the nature and laws of friction, and other useless resistances; the moving powers at our command, their respective nature and the laws which govern their action; the manner in which they are, by machinery, connected with and opposed to the resistances; the construction of machines; the principles of strength of materials as opposed to strains; the equilibrium of structures, frames, roofs, arches, domes; the general principles of mechanism; general maxims in the structure and working of machines; maximum effects of machines; hydraulic engines; the steam-engine. The works used as guides to the studies of the Students in this Class are selections from Lloyd's and Robinson's Mechanics, Willis's Principles of Mechanism, Barlow on Materials and Construction. Hodgkinson's Experimental Researches, Tredgold, Tate's Elementary Treatises and Exercises, and selected numbers of Weale's Rudimentary Series.

CHEMISTRY—*Professor, Thomas Andrews,* M.D., F.R.S., M.R.I.A.

In the Class of Chemistry the greater part of the Course is devoted to pure Chemistry; but the Elements of the Sciences of Heat and Electricity, particularly in their relations with Chemistry Proper, are also taught. The application of these sciences to the arts are particularly referred to; and it has been the constant endeavour of the Professor to communicate to the Students as precise and accurate information as possible on the subjects treated in his Lectures, and to train them to habits of careful observation and accurate thinking. With this view a weekly examination of the whole Class is held, at which the Students are subjected to a searching examination on the business of the preceding week; and further to encourage a taste for scientific inquiry, and also to train a certain number of practical chemists, a limited number of the Students are admitted, by examination, as working pupils into the chemical laboratory, where they have an opportunity of acquiring a knowledge of chemical analysis. This latter arrangement has now been in practice for several years, and has been attended with the best results.

NATURAL HISTORY—*Professor, Wyville Thomson,* LL.D.

The Zoological Department of the Course occupies the First Term and greater part of the Second, and comprehends the Outlines of Anatomy and Physiology of animals, followed by Systematic Zoology, and remarks on the distribution of animals.

The Botanical part comprehends Vegetable Anatomy and Physiology, Systematic Botany, and distribution of vegetable forms. In addition to the Class Lectures, meetings are held in the Botanic Garden, and practical excursions made into the neighbouring country.

This Course comprehends chiefly Lectures on the structure and form of continents and islands; the distribution of mountain systems, rivers, and lakes; the ocean, its currents, temperature, &c.; the atmosphere, its currents, &c.; rain, snow, &c. The preceding subjects are considered in relation to the geographical distribution of animals and plants.

These different branches are illustrated by specimens, or drawings, or both, as the case may be.

GEOLOGY AND MINERALOGY—*Professor, Wyville Thomson,* LL.D.

The Courses consist of lectures, demonstrations, and examinations. The Geological Course embraces the general principles of the science, and a detailed investigation of the palæontological, lithological, and economic characters of all the formations. The Students are exercised in the practical use of the necessary instruments, and in the construction of Geological maps and working sections. The characteristic fossils of the different formations are rendered familiar by the exhibition of specimens and models, and an excellent series of drawings. Drawings are also used for the illustration of the underground workings of mines of copper, coal, &c.

In the Mineralogical Course the Students are instructed in the most modern crystallography by models, and exercised with the reflecting goniometer. The electro-chemical classification of minerals is then explained, and an extensive suite of minerals in the Museum is arranged on that system, for the instruction of the Students.

Once a week examinations are held, and additional explanations given of the subjects of the preceding lectures.

LOGIC AND METAPHYSICS—*Professor, Rev. James M'Cosh,* LL.D.

LOGIC.

Students attend this Class four days each week during twelve weeks of the Second Session. On two of these days there are examinations on a text-book of Formal Logic, with short prelections on the said text-book, and also the oral explanation of philosophic terms, the reading of Essays by the Students, and the criticism of them by the Professor. On the other two days the Professor delivers written Lectures. This Course of Lectures is divided into two parts: FIRST, GENERAL LOGIC, or an Exposition of the Laws of Discursive Thought in general, that is, whatever be the object of thought, embracing Notions, Judgment, and Reasoning; SECONDLY, PARTICULAR LOGIC, or the Development of the Laws of Thought, as directed to particular classes of objects, comprising Demonstrative Evidence, Probable Evidence, Induction, Analogy, Teleology, and the Relation of the Organon of Bacon to that of Aristotle. The prominent topic in the second part is the Method of Induction, which is treated under the heads:—I. The Means, being generally Systematic Observation, and more particularly Analysis, Observation Proper, Experiment, Hypothesis, Explication of the Conception. II. The End, being the Discovery of Classes (as in Natural History, &c.), of Composition (as in Chemistry, &c.), or Causes (as in Natural Philosophy, &c.). III. The Canons of Classes, Composition, and Causes by which we may reach the End by the Means. The Students are required to give in a short written essay once a fortnight. At the Pass Examination, at the close, about one-half of the questions bear upon subjects discussed in the text-book, and the other half upon topics explained in the lectures.

METAPHYSICS.

This Class meets four days each week, and an hour each day, during the first two terms of the Session, and is attended by Students of the Third Year. On one of these days there is a rigid examination, with interspersed remarks by the Professor, on the second half of the Epitome of the History of Philosophy, sanctioned by the University of France (translated by Henry). In this part of the text-book there is an abstract of the doctrines of the more eminent philosophers who have flourished in this country, and on the Continent of Europe, from the time of Bacon to the present day. On another of these days there is an examination on the written lectures, together with the reading and criticism of essays; the Students being required to give in a carefully written essay every fortnight to the Professor, who reads it at home, and selects certain portions of it to be read in the class, where he criticises it. These essays are on the leading subjects discussed in the written lectures. On the other two days the Professor delivers carefully prepared written lectures. He begins the course with a few lectures on the Method of Investigation, which is that of Induction, and on Mind and Body,

Appendix, No. 7.

Digest of Subjects and Courses.

and then proceeds to divide his course into two parts, PSYCHOLOGY and METAPHYSICS PROPER.

Under PSYCHOLOGY he treats of the Powers or Faculties of the Mind which he classifies as follows:—I. The Simple Cognitive Faculties: (*a*) Perception; (*b*) Consciousness. II. The Reproductive Faculties: (*a*) Retention; (*b*) Phantasy; (*c*) Association; (*d*) Recognition; (*e*) Composition; (*f*) Symbolic Power. III. The Faculties which Discover Relations: (*a*) of Identity and Difference; (*b*) of Whole and Parts (to which we owe abstractions); (*c*) of Space; (*d*) of Time; (*e*) of Quantity; (*f*) of Resemblance (to which we owe the Discovery of Classes); (*g*) of Active Property; and (*h*) of Cause and Effect. IV. The Conscience. V. The Emotions; and VI. The Will. In this course of lectures, which occupies two-thirds of the session, the method of operation and peculiarities of these mental attributes are carefully pointed out.

Under METAPHYSICS PROPER the Professor treats of the Native or Intuitive Principles of the Mind. He points out their true Psychological Nature, and shows that they are the fundamental laws or rules of the Faculties. He also specifies the tests, such as Self-evidence, Necessity, and Universality, by which they may be distinguished. He proves that they are in the constitution of the mind, and that they operate spontaneously, but that we can make a reflective or philosophic use of them only after we have detected their nature by a careful induction. He classifies them as the True and the Morally Good. Under the first he treats (1) of Primitive Cognitions and Beliefs, such as Body, Spirit, Substance, Power, Space, Time, the Infinite; and (2) Primitive Judgment, such as Substance and Quality, Mathematical Axioms, Cause and Effect. Under the Good, without entering into the subject of Ethics, he shows that there is a fundamental distinction between Moral Good and Evil. He closes this course by showing how all these principles should conduct us to the belief in a Being who is at one and the same time the True and the Good.

HONOR LOGIC.

The Professor has also an Honor Class, in which are discussed the higher questions of Logic (Formal and Inductive) and Philosophy. It meets three times a week, and is attended by fourteen Students. At two of the hours the Professor lectures on Logic and the History of Philosophy, and at the third hour there are examinations on text-books (including logical treatises by Mansel, Thomson, and Mill), and discussions.

CIVIL ENGINEERING—*Professor, James Thomson,* M.A., C.E.

The Courses of lectures and practical instruction given by the Professor of Civil Engineering are arranged to accord with the Ordinances of the Queen's University, which prescribe to candidates for the Diploma in Civil Engineering a Curriculum extending over three Sessions usually, but admitting of abbreviation to two Sessions in the case of students whose previous acquaintance with a sufficient group of the subjects prescribed for study in the first and second Sessions of the ordinary Course shall be deemed by the College Council satisfactory.

For the First Year Students the Professor gives a course of instruction, comprising lectures and oral examinations on the Principles of Geometrical Drawing, and the performance by the students of practical work under his direction. The lectures include the principles of descriptive geometry, orthographic and isometric projection, and linear perspective; and the practical work comprises the performance of examples in these subjects, and the execution of drawings in Mechanical Engineering, and occasionally also in Architecture and Civil Engineering. The Class meets for two hours at a time on two days per week during the three Terms of the College Session.

For the Second Year Students two courses are conducted by the Professor of Engineering, of which one is a Lecture Course and the other a Practice Course. The Lecture Course comprises surveying, levelling, and plotting, with the theory and use of the instruments required in surveying and levelling operations; mensuration of earthworks for railways; setting out works on the ground, including ranging of railway curves, and setting out breadths of cuttings and embankments, and ranging tunnels, &c. The Course also comprises usually some of the

following subjects:—revision and farther prosecution of descriptive geometry, and perspective, and other subjects of geometrical drawing; designing and drawing of oblique bridges; properties and qualities of materials used in construction, and modes of procuring them; and an introduction to architecture as a fine art.

In the Practice Course of the Second Year the Students are engaged in the performance of office and field work, under the instruction and direction of the Professor; and the business includes surveying, levelling, drawing, mapping, and the computation of areas of lands, and other engineering calculations. Excursions are also made occasionally during the Session to visit Engineering works.

For the Third Year Students there are (as for those of the Second Year), two Courses conducted by the Professor, one a Lecture Course, and the other a Practice Course. The Lecture Course comprises the farther treatment of some of the subjects proposed to be entered on in the Second Year, and most of the following subjects:—foundations, cofferdams, bridges, tunnels, roads, and railways; specifications for engineering contracts; water-works for supplying towns; science of the flow of water in orifices, pipes, and canals; drainage of fens by gravitation, and by steam power and other mechanical means; harbours; regulation and improvement of rivers; science of the strength of materials and structures; ventilation of dwelling-houses, public buildings, and mines; the iron manufacture; processes and mechanisms used in foundries and engineering workshops.

The Practice Course includes office work, field work, and engineering excursions.

ANATOMY AND PHYSIOLOGY—*Professor, Peter Redfern,* M.D., Lond., F.R.C.S.

The Department of Anatomy and Physiology comprises two distinct Courses of Lectures—one on Anatomy and Physiology, the other on Descriptive and Surgical Anatomy, and also the teaching of Anatomy by Dissections throughout the day.

The Course of Anatomy and Physiology includes about 144 meetings, each of an hour's duration, held on the first five days of each week from November to April inclusive. These meetings are for lecture and occasional examinations on the subjects previously considered in the lectures. The lectures include a complete course of the Anatomy and Physiology of the general textures of the body, including the blood, chyle, &c., and a systematic account of the whole of the viscera, treated of as they are associated in groups for the several purposes of digestion, circulation, respiration, urination, innervation, and generation; also the organs of sense. In treating of every part or organ its healthy state is shown by recent dissections and by preparations from the Museum illustrating it in man and animals, its diseased states and actions being referred to at the same time and contrasted with the healthy ones. The textures not visible to the naked eye are shown under a series of achromatic microscopes, so that during the Course every student in the class has an opportunity of judging for himself of the true characters of each part, and, by becoming familiarized with these, of recognising each when changed by disease.

The Course of Practical Anatomy and Anatomical Demonstrations includes:—

1st. Dissections carried on throughout the day under the immediate superintendence of the Professor of Anatomy and Physiology, and the Demonstrator. Each Student is required to be steadily engaged in dissections during the whole Session. For this purpose the supply of subjects is regular and abundant, and thus affords the surest foundation for efficient medical teaching.

2nd. This Course includes the Anatomical Demonstrations, which consist of a complete Course of Descriptive and Surgical Anatomy, commencing with the anatomy of the skeleton and bones, and including the anatomy of the limbs and other parts, excluding that of the viscera and the physiology treated of in the Course of Anatomy and Physiology. The demonstrations are given on each of the first five days of the week, and are about 117 in number in each Session.

Appendix, No. 7.

Digest of Subjects and Courses.

PRACTICE OF MEDICINE—*Professor, James Cuming,* M.D.

The class meets four times each week, from the first week of November to the last of the following April.

An examination is held usually once a fortnight. The Course embraces the principles of Inflammation, Fevers, the diseases, organic and functional, of the viscera of the three great cavities of the human body. In treating of individual diseases, their pathology, semeiology, ætiology, and treatment, are the subjects chiefly dwelt on. Wherever it is possible, pathology is illustrated by the preparations afforded by our Museum, by drawings and plates, or by recent specimens. It may be added that the Professor's present connexion with the Belfast General Hospital adds greatly to the means of making his Course more useful and interesting to students.

THEORY AND PRACTICE OF SURGERY—*Professor, Alexander Gordon,* M.D.

Four Lectures are delivered weekly during the Medical Session. An examination is held each day on the subject of the preceding day's Lecture. Each Course comprises the following subjects:—

Inflammation,
Suppuration,
Mortification,
Erysipelas,
Burns,
Ulcers,
Wounds,
Hæmorrhage,
Diseases of the Arteries,
,, Veins,
Fractures of Trunk and Extremities,
,, Cranium, Injuries of the Brain and Scalp,
Dislocations,
Diseases of the Joints,
Diseases of the Bursae,
,, Bone, benign and malignant,
,, the Jaws and Mouth,
,, the Fingers and Toes,
,, Female Breast,
,, Anus and Rectum,
,, Testis,
,, Hernia,
,, Prostate,
,, Bladder,
,, Eyes,
,, Larynx,
Syphilis,
Gonorrhœa,
Stricture.

All the capital and minor operations are performed on the dead subject. The Professor delivers a separate Course of twenty-five Lectures on Operative Surgery.

MATERIA MEDICA—*Professor, James Seaton Reid,* M.D.

This Course includes—

1st. General Pharmacology, or the modes in which medicines act upon the living organism in a state of health.

2nd. Therapeutics, or the modes in which medicines act as curative agents.

3rd. Pharmacy.

4th. Dietetics, a review of the different kinds of food used in health and in disease.

5th. Special Pharmacology, or the history, composition, uses, and modes of administering medicinal agents for the cure of disease.

The Class meets four times each week. An examination is held once every week.

Midwifery—*Professor, William Burden*, M.D.

Lectures four times a week during the six winter months consist of following subjects:—

Anatomy of the pelvis, so much as is required for midwifery. Its measurement and pelvimeters.

Contents of the pelvis. The functions of the uterus in its virgin state.

Conception—length of gestation—changes of the uterus and its appendages during gestation.

Growth of child from its earliest seen form until its full parasitic size.

Graafian vesicle and corpus luteum. Fœtus, its circulation, signs of maturity, weight, and length.

Plural births.

Proportion of births and deaths of males to females.

Superfœtation.

Signs of pregnancy.

Signs of approaching labour.

Natural labour, its progress; also the positions and progress of child till its separation from its mother.

Management of natural labour, including the arrangement of the bed and bed-room, and the proper dress and posture of the patient.

Tedious labour, its causes and treatment.

Labour requiring the use of instruments; their application taught on models in the class.

Cæsarean section and Sequltean operation—how to prevent the fœtus from getting large in uterus.

Premature labour—how to bring it on, and when it is necessary to do so.

Cross-births and their treatment.

Abortion—how to prevent it.

Extra uterine fœtations—how they occur, and their treatment.

Management of women after delivery, and treatment of such accidents and diseases as occur at this period.

Management of children after birth, washing, dressing, food, &c., and the choice of a wet-nurse, and treatment of such accidents as take place at this period, or soon after.

Practical midwifery taught by pupils attending patients in their own houses and in the Lying-in hospital, where Clinical Lectures are given.

Medical Jurisprudence—*Professor, Dr. Hodges.*

The Lectures in this Course are delivered twice weekly during six months. They include an account of the history and chemical investigation of poisons, and of the various subjects respecting which the evidence and assistance of Medical Practitioners may be required in Courts of Law. Experimental illustrations of the methods to be pursued in medico-legal inquiries are given, and frequent examinations held to test the progress of Students. No salary has been allocated to the Teacher of this department, and the duties, at the request of the Council, have, since the opening of the College, been performed by Dr. Hodges.

English Law—*Professor, Echlin Molyneux*, Q.C.

The Professor of English Law, in conducting his department, has constantly kept in view the object of the Select Committee of the House of Commons in recommending the foundation of Chairs in Law in connexion with the Queen's Colleges, which, as they stated in their Report on Legal Education, was not merely to prepare Candidates for the Bar, and for the profession of Attorney and Solicitor, but to raise the standard of legal attainments amongst local practitioners, and especially to provide opportunities of legal education to qualify persons intended to fill administrative situations not strictly legal—a policy which has

Appendix, No. 7.

Digest of Subjects and Courses.

been since followed up by the Legislature conferring privileges, by way of inducement, on Candidates for the profession of Attorney and Solicitor, who shall avail themselves of these Schools of Law.

The Course of the *First* year in this department comprehends the elements of real and personal property, with the principles of conveyancing; that of the *Second* consists of an introduction to the principles and practice of Courts of Equity and the law of Bankruptcy; the *Third* Course includes the common law as incident to contracts, the nature and form of remedies by civil action, and an outline of criminal law, theoretical and administrative, which last completes the Curriculum of instruction required for the attainment of the Diploma of Elementary Law in the Queen's University. The subjects prescribed for Students of the *Fourth* year to qualify them for the Degree of LL.B. embrace a more extended and detailed course of the subjects already enumerated, including the law of wills, powers, evidence, and procedure.

The Lectures are made auxiliary to the cotemporaneous studies directed, and are accompanied by interrogation, independent of the General Examination and that for Honors. Such books, cases, and decisions, and portions of treatises are pointed out for reading as are considered by the Professor most useful in elucidating a branch of learning which is scarcely furnished with books exclusively intended for instruction; and no efforts have been spared to point out the peculiarities of the law in Ireland, whether proceeding from statutes or inherent diversity of practice, or to direct attention to the recent changes which have been introduced into the course of procedure.

From the first opening of the College to the present time the successive classes have spontaneously applied themselves with assiduity and perseverance to the various subjects of legal instruction, and several Non-Matriculated Students have from time to time availed themselves of the privilege afforded by the College Ordinances of attending detached Courses of the Lectures on selected subjects.

Under these circumstances, the Professor is gratified at being able to give the assurance that the Faculty of Law has fully realized the objects of its founders, and that a further extension of its public benefits would ensue upon the adoption by Government of the suggestion made by the same Committee of the House of Commons that a preference should be given to candidates for situations in the Civil Service, not of a purely legal nature, who could produce testimonials of legal attainments from those institutions—a rule which would fully accord with the principle laid down in a recent report of another Committee in relation to the Civil Service.

JURISPRUDENCE AND POLITICAL ECONOMY—*Professor, T. E. Cliffe Leslie*, LL.B.

The subjects embraced in the Course of Lectures on *Jurisprudence* are according to the regulations of this College, (1) the Elements of Jurisprudence, (2) Civil Law, (3) Constitutional Law, (4) Colonial and International Law.

In the treatment of these subjects both the *Historical* and *Philosophical* Methods are followed in the Lectures of the Professor. The Historical Method, for example, is applied in tracing the principal changes through which the laws of England have passed, the assignable causes of such changes, and the degree and manner in which, in comparison with the laws of Continental Europe, the laws of this kingdom have been affected by contact with the principles of Roman legislation. The method of Philosophical Analysis, on the other hand, is applied in investigating the doctrines of the foundation and classification of rights, the several parts and legitimate form of a complete code, the relation of Scientific Jurisprudence to other departments of Social Philosophy, and the means of improving the state of Positive Law as deducible from such considerations.

The subjects which a Course of Lectures on *Political Economy* must embrace are fewer and more definite than those classed under the less advanced and more complicated Science of Jurisprudence. It is the Professor's endeavour to illustrate the principles of Economic Science by the help of those practical applications which will be most interesting and useful in a large commercial town.

APPENDIX, No. 8.

GENERAL CLASS EXAMINAION at the close of the SESSION 1864–65.

FIRST YEAR STUDENTS.

THE ENGLISH LANGUAGE.—*Examiner, Professor Craik.*

1. Give a distinct account, with the dates, of the connection of the Romans with Britain from its commencement to its close.

2. Give the dates of the following events:—The arrival (as commonly stated) of the first Teutonic invaders of Britain; the Mission of St. Augustine; the first recorded descent of the Northmen, or Danes; the treaty between King Alfred and Godrum; the conquest of England by Sweyn; the restoration of the old reigning family; the establishment of the Normans in France; the Norman Conquest of England; and the commencement of the reign of each of the successors of the Conqueror to Edward III. inclusive.

3. Estimate how much we probably retain in our present English of the Celtic tongue of the old Britons, illustrating your statement by examples.

4. Explain distinctly the various successive sources from which the English language has derived whatever vocables of Latin origin it contains, or has ever contained; giving illustrative examples as you go along.

5. Describe precisely the several constituents of our present English vocabulary, distinguishing those of which it is mainly made up from those of inferior importance.

6. Explain the two great revolutions, with their causes, by which the English language has been brought from its original to its existing state.

7. Give a scientific account of the present English language:—1. In its Grammatical structure; 2. In its Vocabulary, including the *proportions* of the several ingredients of which that is composed.

8. Give an account of the present *French* language (explaining the name), and of the two great dialects into which it was formerly divided.

9. Explain the relationship to each other of the various still or recently subsisting Celtic tongues or dialects.

10. Give an account of the work called the Ormulum.

11. Explain what is meant by a Dialect as distinguished from a Language, and show how a language may naturally effloresce into a diversity, first of dialects, and finally of languages.

12. Explain the principle or rule according to which, in our present English, each of the vowels takes the *name* by which it is commonly known.

N.B.—Punctuation, as well as Grammar and Spelling, must be carefully attended to.

SECOND YEAR STUDENTS.

LOGIC.—*Examiner, Professor M'Cosh.*

1. What division of notions was given in the class? Give examples of each kind. What reality is there in the abstract notion, *g.e.*, rationality, and in the general notion, *g.e.*, rose? What mistakes arise from misunderstanding the nature of abstract and general terms?

Appendix, No. 8.

General Class Examination.

2. "Two and two are four." "Books are required for a library." Specify subject and predicate in these propositions. Are the terms distributed? Interpret the propositions, so as to show the relation of the two terms. Convert the second proposition, and put it in the various forms of opposition.

*3. Are EIE, OAO, AEE, EAI, IEO, allowable moods? If so, in what figures? If not, give the reason.

*4. Show that a universal affirmative cannot be drawn in the second or third figures.

5. "These sinners were sinners above all the Galileans, because they suffered such things." What major premiss is necessary to make this reasoning valid? Disprove by a syllogism in the third figure. Reduce this syllogism to the first figure.

6. Define a conditional proposition, and explain the nature, the parts, and the rules of conditional reasoning. Examine the following; indicate the antecedent and consequent, major and minor premiss and conclusion; and reduce it to categorical form:—"If the man has committed murder there will be blood upon his clothes; there is blood upon his clothes; therefore he has committed murder.

7. A celebrated author, in arguing against the Aristotelian analysis of reasoning, shows that men can reason without knowing the syllogism. What fallacy has he been guilty of? Define that fallacy, and illustrate its nature by the example.

*8. What purposes are served by hypotheses in induction? Under what conditions are hypotheses allowable? You are invited to illustrate by examples.

*9. What aids and guides in generalization are furnished by the works of nature? What is meant by the classes called Kinds? When may we conclude that we have reached a natural class?

10. "I always feel the rheumatism most in March, and I believe it is owing to the prevalence of the cold searching east wind which prevails at that season." What is necessary to bring this case under the Method of Difference? In answering this question, enunciate the Canon of that Method.

11. What is the argument from analogy? When is it conclusive, positively and negatively? What fallacies may spring from analogy? Examine the following:—"The capital bears the same relation to the country as the heart does to an animal. As the enlargement of the heart is injurious to the animal, so too great a metropolis may be perilous to a country."

12. What place has deduction in mathematics? What in natural philosophy? What is meant by verification of inductions? Illustrate by examples.

N.B.—Those seeking Honors omit the questions marked (*), and answer the following:—

HONOR QUESTIONS.

α. Put the *reasoning* in the following statement against pantheism in logical form, supplying premisses when needful:—"If it can be shown that there are two or more persons, it follows that all is not one, that all is not God. According to every scheme of pantheism, I, as a part of the universe, am part of God, part of the whole which constitutes God. In all consciousness of self, we know ourselves as persons; in all knowledge of other objects, we know them as different from ourselves, and ourselves

as different from them. God then must be different from one part of his works. He must be different from me."

β. "Some poets are not wise.
All poets are men of genius."

What is the conclusion? Indicate the mood and figure, and reduce the syllogism both ostensively and by *reductio ad impossibile*.

γ. All the Indo-European languages have the same word for the common operations of husbandry (as in Sanscrit *Ar*, in Latin *Arvum*). It seems, also, they have the same word for cold (*Himalaya, Hyems, &c.*). But all the languages have not the same words for the common metals; thus they have not the same word for iron. It is argued that the races speaking these languages must all have sprung from an agricultural people dwelling in a country exposed to cold, and that they must have separated before they knew the principal arts. What canon or canons of induction would justify this inference?

δ. By what criteria would you test the following?
(*a*) An axiom proffered without proof.
(*b*) An inference from proof furnished.
(*c*) A class of plants declared to be a natural one.
(*d*) The supposed cause of a natural phenomenon.
(*e*) The occurrence of an alleged historical event, say the Siege of Troy.

ZOOLOGY.—*Examiner, Professor Wyville Thomson.*

1. Give in detail the characters of the Cephalopoda, and contrast them with those of the Pteropoda.
2. Describe the structure of the nudibranchiate Mollusca, and state the relative positions of the heart and branchiæ in this group.
3. Describe the structure of the respiratory apparatus in the pulmonate Mollusca.
4. Sketch the classification of the Crustacea.
5. Sketch the devolpment of the Cirrhipedia.
6. Describe the struction of the compound eye of an Insect.
7. Contrast the Coleoptera and the Hemiptera, in structure, and mode of development.
8. Give a general sketch of the structure of one of the Annellida dorsibranchiata.
9. Describe the distribution of the ambulacral vascular system of the Echinodermata.
10. Describe the structure of Hydra.
11. Describe some of the principal modifications of the hydroid type.
12. Give the characters of the Protozoa Radiolaria, and distinguish them from the Reticulosa.

LAW OF PROPERTY.—*Examiner, Professor Molyneux.*

1. For what two classes of cases do the Statutes against fraudulent or voluntary conveyances of real property provide? And in what instance is the operation of one of them modified by Courts of Equity?
2. What word is essential in a deed to create an estate of inheritance?
3. State the rule in Shelley's case.
4. In what instance is the consent of a protector of the settlement necessary toward the barring of remainders and reversion?
5. What trusts are not within the operation of the statute of uses?

Appendix, No. 8.

General Class Examination.

6. What are the husband's rights in relation to his wife's estate of inheritance?

7. Devise of a freehold in black acre and of a term of years in white acre to A B and the heirs of his body, what estate does he take in them respectively?

8. What were the necessary forms of assurance for the conveyance of real property before the 8th & 9th Vic.?

9. What is a mortgage? How is it viewed in a Court of Equity? and how in a Court of Law?

10. What is the nature of the equitable doctrine of conversion, and how does it operate as between the claimants of the real and personal estate of a deceased person?

11. In what consists the difference between a legal and equitable estate?

12. Enumerate the several subjects of personal property.

12. What is a remainder?

14. A B being seized of an estate in fee simple, which he had derived as heir *ex parte materna*, by settlement executed after the Inheritance Act, 3 & 4 Wm. IV., came into operation, limits it to C D in tail, with remainder to his own right heirs. C D dies without issue; and afterwards A B dies intestate, leaving a paternal uncle and a maternal aunt his sole relatives him surviving. Which of those two persons will succeed to the estate? And which would have succeeded if A B had executed the settlement before the Act was passed? And what is the provision of the Statute which affects the tracing of the inheritance in such a case?

15. Of what did tithes originally consist? and what were the statutable changes to which that class of property has been subjected in Ireland?

16. What is the nature and operation of the Judgment Act of 1850, as now in force in Ireland?

17. Conveyance of real estate by A B directly to C D for life, remainder to E F, a minor, son of C D, and heirs of his body, and if he shall die before he shall arrive at the age of twenty-one, the remainder to X Y Z, and his heirs; what are the several estates thereby created in point of duration?

18. What advantage has the indorsee of a bill of exchange over the assignee of a bond in reference to their respective remedies?

19. State some of the particulars in which the rules which respectively govern the devolution of title to real and personal property on the death of the owner intestate correspond; and state some of the particulars in which they differ.

20. In what respect does the rule of construction applied to executory agreements differ from that applied to formal conveyances, in relation to limitations of property thereby respectively provided?

21. Where a tenant at will remains in possession; after what period is the right to determine the tenancy and bring an action for the recovery of the land lost through operation of the statute of limitations?

22. In what cases do personal rights of the wife rest only conditionally in the husband?

23. What class of estate of inheritance of the husband does not entitle the wife to dower? and what class of estate of inheritance in the wife does not entitle the husband to an estate by the curtesy?

24. In what case does the word heir, in a deed, not create an estate of inheritance in the ancestor?

25. Give an instance in which a lease is void, and an instance in which it is only voidable.

JURISPRUDENCE.—*Examiner, Professor Leslie.*

1. What is the historical connexion between the English and the Roman law of wills?
2. Explain historically the cause of the distinction between law and equity in the English legal system.
3. What does Austin mean by general jurisprudence?
4. Give examples of distinctions in general jurisprudence which are not found in ancient law?
5. Give examples of distinctions in ancient law which do not exist in general jurisprudence.
6. Give examples of distinctions in general jurisprudence which are not made in English law.
7. Give examples of distinctions in English law which do not exist in general jurisprudence.
8. Explain the distinction between the law of persons and the law of things.
9. What are the different distinctions denoted by written and unwritten law?
10. How far does antiquity, even according to the principles of Bentham, afford a reason for maintaining existing institutions.
11. Explain Bentham's classification of the evils against which laws should guard, into evils of the first, second, and third order.
12. Explain the grounds of the modern changes in the law relative to the admissibility of evidence.
12. State the views of Adam Smith and Bentham respectively as to the proper mode of defraying the expenses of administering justice to suitors.
14. What are, according to Austin, the distinguishing marks of sovereignty?
15. What are "half sovereign states"?
16. When were itinerant justices of assize instituted, and what, according to Hallam, was the effect of this institution upon English law?
17. What were the original functions of the jury?
18. State the different changes in the descent of lands which were made between the Conquest and the time of Glanville.

CIVIL LAW.—*Examiner, Professor Leslie.*

1. Sketch briefly the principal epochs in the historical relations between English and Roman law.
2. Cite proofs of the influence of Roman law upon the law of England before the conquest.
3. Why does Mr. Maine class English case-law under the head of legal fictions, and why does it resemble in this respect the *responsa* of the Roman jurisconsults?
4. Explain the original and subsequent meaning of the Perpetuat Edict.
5. Explain the terms *quasi-contract* and *quasi-delict.*
6. State the general classification of *jura in personam* in Roman law and Austin's jurisprudence respectively.
7. Is the distinction between the law of persons and the law of things fundamental and strictly logical or not, and why?
8. What is the connexion between English *trusts* and Roman *fidei commissa?*

Appendix, No. 8.

General Class Examination.

9. State some other cases of the appearance of Roman legal principles in English equity.

10. What is the reason given in Roman law for treating custom as law, and how is it criticised by Austin.

11. Explain the terms *universitas juris*, and *universal succession*.

12. Explain the connexion between the *mancipatio* of ancient Roman law and the latest Roman *testament*.

Third Year Arts Students.

Political Economy.—*Examiner, Professor Leslie.*

1. Define the terms *price, cost of production*, and *direct* and *indirect taxation*.

2. How does cost of production regulate prices in general?

3. What is the connexion between the price of corn and its cost of production?

4. How does agricultural rent arise, and on what does its amount depend?

5. Enumerate the principal causes which produce differences in the rate of wages and profit in different employments, and explain briefly how they do so.

6. On what does the relative value of commodities produced in different countries depend?

7. Is corn a good measure of value or not, and why?

8. Show how the influx of additional money into a country, after the discovery of new mines in another country, affects prices in the former.

9. Explain what is meant by "the balance of trade."

10. Can the effect of the new gold on prices be precisely measured by the changes in prices or not, and why?

11. Was the rise of prices in the new gold countries, in the two years after the discovery of the mines, caused by the new gold alone?

12. Was the rise in the prices of some important commodities in England, in 1853—1856, caused by the new gold alone?

13. Show that the new gold disturbed the equality of wages and profit in different employments.

14. Is the statement that the new gold affected prices differently in different trades consistent with the doctrine of cost of production or not, and why?

15. Is a tax on rent a direct or an indirect tax, and why?

16. Is a separate tax on farmers' profit a direct or an indirect tax, and why?

17. By what persons are the losses occasioned by the shipwreck of insured trading vessels borne, and why?

18. By what persons are the losses occasioned by fires of insured dwelling-houses borne, and why?

English Literature.—*Examiner, Professor Craik.*

1. *Each competitor* will head his answers with a statement of the study in which he conceives that he has made the greatest progress up to the present time, and of what the amount of that progress is.

2. Relate the history of the English Language from the middle of the

eleventh to the middle of the fourteenth century, noting the revolutions undergone by it in the course of those three hundred years, and explaining how each was brought about.

3. Mention one writer in verse and one in prose belonging to each century from the fourteenth to the nineteenth inclusive—the more eminent the better—and describe briefly but distinctly what they have severally done in our literature.

4. Give an account of what had been done in Dramatic Literature in England before the appearance of Shakespeare.

5. Give an account of any one considerable poetical work belonging to either the eighteenth or the nineteenth century.

6. Give an account of any English work in prose that you have read.

7. Describe the characters of Brutus, of Cassius, of Antony, and of Octavius, as set forth in Shakespeare's play of *Julius Cæsar*.

8. State some of the grounds for the usual division of a regular drama into Five Acts.

9. Sketch the biography of Chaucer, or of Spenser, or of Shakespeare, or of Milton, or of Swift, or of Pope, or of Johnson, or of Burke.

10. Explain any words or forms philologically noteworthy which you may remember in the first eighteen lines of the Prologue to the Canterbury Tales.

11. Explain the following passage from the same introductory portion of Chaucer's great poem, with minute attention to every peculiarity :—

> Ther was also a Nonne, a Prioresse,
> That of hire smiling was ful simple and coy,
> Hire gretest othe n'as but by Seint Loy,
> And she was cleped Madam Eglentine;
> Ful wel she sange the service devine,
> Entuned in her nose ful swetely;
> And Frenche she spake ful fayre and fetisly,
> After the scole of Stratford atte Bowe,
> For Frenche of Paris was to hire unknowe :
> At mete was she wel ytaughte withalle.

12. Give an exact account of the forms of verse employed by Chaucer, for the greater part, in the Canterbury Tales, by Spenser in his Fairy Queen, by Shakespeare in his Plays, by Milton and others in their Sonnets, by Sir John Davies in his *Nosce Teipsum*, by Swift mostly, by Pope generally, by Scott in his Lady of the Lake and other poems, by Chapman in his Iliad, by Drayton in the Polyolbion, by Tennyson in his Locksley Hall, and by the same writer in his *In Memoriam*.

13. Explain what you conceive to be the true relation of Expression to Thought.

14. Define Artistic writing, or Literature properly and distinctively so called.

15. Explain the various elements that make up the charm of verse.

16. State distinctly, but simply and without any attempt at explanation, what Plato says about Poetry being Imitation in his *De Republica*, and the doctrine on the same subject laid down by Aristotle.

METAPHYSICS.—*Examiner, Dr. M'Cosh.*

1. State exactly the doctrine of Brown and that of Hamilton as to the nature of sense-perception. You are invited to offer comments.

2. What seem to be our original perceptions by the sense of sight? Show clearly and fully how we come to measure distance by the eye.

Appendix, No. 8.

General Class Examination.

*3. Evolve the intuitive perceptions involved in the exercise of self-consciousness.

4. Bring out fully what is involved in the recognitive power of the mind. How do you account for the apparent deception of memory at times?

*5. What is the power of composition? What claim has it to be regarded as a separate power of the mind? What elements meet in imagination?

*6. Distinguish between the phantasm and the abstract and general notion. Give a psychological analysis of the faculties employed in the formation of the general notion.

7. Explain what is meant by the relation of identity, especially the identity of self. Enunciate the principles of identity proper, contradiction, and excluded middle.

8. Show what place idea or apprehension has in emotion. What kind of ideas excite emotion?

*9. Explain as clearly as you can what is involved in that beauty which is called "intellectual." In doing so, refer to some of the more famous theories on this subject.

10. State and briefly illustrate the difference between the spontaneous exercise and the reflex use of intuition. Which comes first? In which may there be error?

11. How are mathematical axioms formed by the mind? Are they the result of a gathered experience? Is there any discursive process involved in their formation?

12. What is the *differentia* of will? How is it distinguished from emotion? Is wish an exercise of emotion or will? Is there a distinction between desire and volition? What voluntary element is in benevolence?

N.B.—Students seeking honors omit those marked (*), and answer the following:—

HONOR QUESTIONS.

(α.) D. Stewart remarks, "The miserable quibble about the non-existence of secondary qualities never could have attracted the notice of so many profound thinkers had it not been for a peculiar difficulty connected with our notions of colour." What is the peculiar difficulty referred to? Can it be met?

(β.) One class of thinkers declare that there is a beauty in the object, whereas another class refer all beauty to association of ideas. Name the framers of these theories and eminent men holding by each. Give a general estimate of the theories.

(γ.) What can be shown in regard to knowledge by metaphysicians? What is Locke's account of knowledge, and what its defects? State and examine the *phenomenal* and *relativity* theories of knowledge.

(δ.) What is Locke's account of the genesis of the idea of power? What truth and oversight is there in it? Show precisely how we get our idea of power, and answer objections.

---

*1. When was Bacon's "Novum Organum" published? It is said that, according to him, the steps which should be followed in the sciences may be reduced to three fundamental processes. What are these three? What is meant by "prerogative instances?"

*2. What were the views of matter taken respectively by Descartes and Leibnitz? Do you discover any defects in these? If so, what? What do we seem to know of matter intuitively?

3. Locke means by "idea?" What considerations and arguments does

be advance to show that man has no innate ideas? You may offer remarks on his misapprehensions. *Appendix, No. 8.*

*4. How do we get the idea of time? In what book of his "Essay" does Locke treat of this subject? What account does he give? What view does Kant give? You are invited to offer comments on the theories of Locke and Kant. General Class Examination.

5. State precisely Hume's doctrine of causation. Wherein had it a sceptical tendency? How would you meet it?

*6. Specify as many as you remember of Reid's judgments of common sense relating to contingent truth. Try them by the tests of intuition.

7. What function does Kant allow to the practical reason? What is its rule? What are the three postulates without which it could not be conceived?

8. Name the more famous British moralists who represent the moral power in man as being of the nature of reason. Briefly sketch their individual opinions, and say what truth and what error there is in their views.

9. In what way does Bentham make a moral valuation of actions? Indicate the objections which may be taken to his theory of morals.

10. What are the three elementary faculties of the mind, according to Cousin? Specify the functions of each. Do all the operations of the mind proceed from these three?

11. What is Samuel Clarke's argument, and what Descarte's argument, in behalf of the Divine existence? Is there any force in these arguments? Are they sufficient?

12. Name about half a dozen of the most learned metaphysicians, and about the same number of the most original metaphysicians of Great Britain and Ireland prior to our age.

N.B.—Students seeking honors omit those marked (*), and answer the following :—

HONOR QUESTIONS.

(α.) What is implied in substance? State and compare the doctrines as to substance given by Descartes, Spinoza, Locke, and Berkeley. Examine the theory, that substance is the support of qualities.

(β.) Indicate briefly the relation of Fichte to Kant. How would you most effectually meet their idealism?

(γ.) What elements are to be found in our idea and conviction as to the infinite? What philosophers have held that the idea is negative? In what state is the discussion on this subject at this present time?

(δ.) Enunciate and compare the categories of Aristotle, Kant, and Cousin.

GEOLOGY AND PHYSICAL GEOGRAPHY.—*Examiner, Professor Wyville Thomson.*

1. *Geology.*

1. Describe some of the most marked phenomena of denudation.

2. Describe the formation of a "Valley of denudation."

3. Under what altered conditions, as to structure and position, do we usually find the older Paleozoic rocks in Britain, and what have been the causes of these alterations?

4. How would you distinguish an "intruded" bed of trap.

5. Distinguish, mineralogically, the hornblendic from the felspathic series of lavas.

Appendix, No. 8.

General Class Examination.

6. Sketch the main features of the Palæozoic Fauna, and distinguish it from that of the Cainozoic period.

7. Name and describe some of the most characteristic genera of Palæozoic Mollusca, and contrast them with their representative Mezozoic Genera.

8. Sketch the distribution in time of the species of the Genera Lingula, Trinucleus, Orthis, Orthoceras, and Nautilus.

2. *Physical Geography.*

1. Sketch the phenomena and history of an Arctic Glacier.

2. Give the evidences in favour of the subsidence of the bed of the Pacific during the present epoch.

3. Is vegetation and the distribution of vegetable species more influenced by Isothermal, Isotheral, or Isocheimonal conditions? and why?

4. What is the cause of the Gulf Stream, and what are its effects?

Anatomy and Physiology.—*Examiner, Dr. Redfern.*

[First Year Students are required to answer questions 1, 2, 3, 4; Second Year, 2, 3, 4, 5; and Third and Fourth Year, 3, 4, 5, 6.]

1. Mention the chief varieties in the general characters and structure of bone in animals, and the instances in which they respectively occur.

2. Describe the process of healing of wounds of articular cartilages, and that of union of two opposed articular cartilages.

3. Give an account of the papillæ of the skin, and compare them, in point of size and structure, with those of the tongue and the villi of the intestines.

4. Describe the structure, process of development, and function of the chorion and allantois.

5. Give a short account of the pharynx, its size, shape, attachments, structure, vessels, nerves, and uses.

6. Where are closed follicular glands to be found in the human alimentary canal? State their relation to the mucous membrane, and what modifications occur in the structures of the mucous membrane, in each instance you mention.

Practical Anatomy.—*Examiner, Dr. Redfern.*

[First Year Students are required to answer questions 1, 2, 3, 4; Second Year, 1, 2, 4, 5; and Third and Fourth Year, 1, 4, 5, 6.]

1. Name the specimens numbered 1 to 10. State to which side of the body each belongs. Mention the bones with which each articulates, and the distinguishing characters of one articular surface, at least, on each specimen.

2. The dissection of the thorax and back having been completed, describe the position and the method of exposing each of the ligaments of the dorsal vertebræ and ribs.

3. Describe the arterial anastomoses in the neighbourhood of the ankle and heel, with the position and relations of each.

4. The cavity of the chest having been opened in the usual way, the right lung drawn forwards and to the left, and the pleura stripped off, what parts are to be dissected on the surface thus exposed, and where and for what extent will each be found?

3. The abdomen having been opened, state in what order, and by what directions, the pelvic viscera and the parts connected with them are to be examined.

6. Describe the cardiac plexuses, and the branches connected with them. State where these parts are to be found, and how they are to be exposed in the chest.

MEDICAL JURISPRUDENCE.—*Examiner, Dr. Hodges.*

1. Describe the precautions required in the examination of wounds on the bodies of persons found dead.
2. What are the tests to be employed for the detection of picrotoxine?
3. How is the purity of the copper used in Reinsch's process to be ascertained?
4. What is the treatment required in cases of poisoning by oxalic acid?
5. Give an account of the method of employing electrolysis for the separation of arsenic and antimony from liquids containing organic matter.
6. Describe the method of employing dialysis for the separation of poisons from the contents of the stomach.

GREEK.—*Examiner, Professor MacDouall.*

FIRST YEAR STUDENTS.

I.—Translate accurately the opening sentences of the *Cyropaedeia*:—

Ἐννοιά ποθ' ἡμῖν ἐγένετο ὅσαι δημοκρατίαι κατελύθησαν[1] ὑπὸ τῶν ἄλλως πως βουλομένων[3] πολιτεύεσθαι μᾶλλον ἢ ἐν δημοκρατίᾳ, ὅσαι τ' αὖ μοναρχίαι, ὅσαι τε ὀλιγαρχίαι ἀνῄρηνται[1] ἤδη ὑπὸ δήμων, καὶ ὅσοι τυραννεῖν ἐπιχειρήσαντες[2] οἱ μὲν αὐτῶν[3] καὶ ταχὺ πάμπαν[2] κατελύθησαν, οἱ δέ, κἂν[2] ὁποσονοῦν χρόνον ἄρχοντες διαγένωνται, θαυμάζονται ὡς σοφοί τε καὶ εὐτυχεῖς ἄνδρες γεγενημένοι. πολλοὺς δ' ἐδοκοῦμεν καταμεμαθηκέναι[1] καὶ ἐν ἰδίοις οἴκοις τοὺς μὲν ἔχοντας καὶ πλείονας οἰκέτας, τοὺς δὲ καὶ πάνυ ὀλίγους καὶ ὅμως αὐδὲ τοῖς ὀλίγοις τούτοις πάνυ τι δυναμένους χρῆσθαι πειθομένοις.[3] ἔτι δὲ πρὸς τούτοις ἐνενοοῦμεν[1] ὅτι ἄρχοντες μέν εἰσι καὶ οἱ βουκόλοι[2] τῶν βοῶν[3] καὶ οἱ ἱπποφορβοὶ[2] τῶν ἵππων, καὶ πάντες δὲ οἱ καλούμενοι νομεῖς[2] ἂν[3] ἂν ἐπιστατῶσι[1] ζῴων εἰκότως[2] ἂν ἄρχοντες τούτων νομίζοιντο· πάσας τοίνυν τὰς ἀγέλας[2] ταύτας ἐδοκοῦμεν ὁρᾶν μᾶλλον ἐθελούσας πείθεσθαι τοῖς νομεῦσιν[3] ἢ τοὺς ἀνθρώπους τοῖς ἄρχουσι.[3] πορεύονταί τε γὰρ αἱ ἀγέλαι ᾗ[3] ἂν αὐτὰς εὐθύνωσιν οἱ νομεῖς, νέμονταί τε χωρία ἐφ' ὁποῖα ἂν αὐτὰς ἐφιῶσιν, ἀπέχονταί τε ὧν[3] ἂν αὐτὰς ἀπείργωσι· καὶ τοῖς καρποῖς τοίνυν τοῖς γιγνομένοις ἐξ αὐτῶν ἐῶσι[1] τοὺς νομέας χρῆσθαι οὕτως ὅπως ἂν αὐτοὶ βούλωνται. ἔτι τοίνυν οὐδεμίαν πωποτε ἀγέλην ᾐσθήμεθα[1] συστᾶσαν[1] ἐπὶ τὸν νομέα οὔτε ὡς μὴ πείθεσθαι οὔτε ὡς μὴ ἐπιτρέπειν τῷ καρπῷ χρῆσθαι, ἀλλὰ καὶ χαλεπώτεραί εἰσιν αἱ ἀγέλαι πᾶσι[3] τοῖς ἀλλοφόλοις[2] ἢ τοῖς ἄρχουσί τε αὐτῶν καὶ ὠφελουμένοις[1] ἀπ' αὐτῶν· ἄνθρωποι δὲ ἐπ' οὐδένας μᾶλλον συνίστανται ἢ ἐπὶ τούτους οὓς ἂν αἴσθωνται[1] ἄρχειν αὐτῶν ἐπιχειροῦντας.

Appendix, No. 8.
General Class Examination.

II.—1. Parse fully all the words to which the figure (1) is attached, giving the principal tenses of each verb which are actually used in Attic prose.

2. Derive or decompound every word to which the figure (2) is attached.

3. Explain the construction of every word in genitive or dative case to which the figure (3) is attached.

4. Illustrate from the above extract the construction of clauses complementary to verbs that denote perception or reflexion or discourse, both the clauses which turn upon a finite verb after a relative,—for the time and mode of which verb you will give rules,—and those which substitute an infinitive or a participle.

5. Discriminate the functions of *οὐ* and *μή*, and explain the usage of both in the phrase, *οὔτε ὡς μὴ πείθεσθαι οὔτε ὡς μὴ ἐπιτρέπειν.*

6. State, and exemplify from the extract, rules for the use or omission of *ἂν* in both principal and subordinate clauses.

[N.B.—Questions 1 and 2 are for Pass, and questions 3, 4, 5, 6, are for Honors. Question 1 need not be answered by those who take up the Honor questions].

I.—Translate in a perspicuous style these strophes from the *Helene* of EURIPIDES :—

ΕΛΕΝΗ *ἰὼ ἰώ!*

στρ. β.

θήραμα[1] *βαρβάρου πλάτας,*
Ἕλλανίδες[1] *κόραι!*
ναύτας Ἀχαιῶν τις ἔμολεν ἔμολε.
δάκρυα δάκρυσί μοι φέρων,
Ἰλίου κατασκαφὰν[1]
πυρὶ μέλουσαν δαΐῳ[1]
δι' ἐμὲ τὰν πολυκτόνον,[1]
δι' ἐμὸν ὄνομα πολύπονον.[1]
Λήδα δ' ἐν ἀγχόναις[1]
θάνατον ἔλαβεν
αἰσχύνας ἐμᾶς ὑπ' ἀλγέων.
ὁ δ' ἐμὸς ἐν ἁλὶ πολυπλανὴς[1]
πόσις[1] *ὀλόμενος οἴχεται,*
Κάστορός τε συγγόνου τε
διδυμογενὲς[1] *ἄγαλμα*[1] *πατρίδος*
ἀφανὲς[1] *ἀφανὲς ἱππόκροτα λέλοιπε δάπεδα*
γυμνάσιά[1] *τε δονακόεντος*[1]
Εὐρώτα[1] *νεανιᾶν*[1] *πόνον.*

ΧΟΡΟΣ. *αἰαῖ αἰαῖ!*

ἀντ. β

ὦ δαίμονος πολυστόνου
μοίρας τε σᾶς γύναι!
αἰὼν δυσαίων τις ἔλαχεν ἔλαχεν,
ὅτε σε τέκετο ματρόθεν
Ζεὺς πρέπων δι' αἰθέρος
χιονόχρως[1] *κύκνου πτερῷ.*[1]
τί γὰρ ἄπεστί σοι κακῶν;
τίνα δὲ βίοτον οὐκ ἔτλας;

μάτηρ μὲν οἴχεται,
δίδυμά τε Διὸς
οὐκ εὐδαιμονεῖ[1] *τέκεα φίλα,*[1]
χθόνα δὲ πάτριον οὐχ ὁρᾷς,
διὰ δὲ πόλεας ἔρχεται
βάξις,[1] *ἃ σε βαρβάροισι*
λέχεσι, πότνια![1] *παραδίδωσιν;*
ὁ δὲ σὸς ἐν ἁλὶ κύμασί[1] *τε λέλοιπε βίοτον,*
οὐδέ ποτ' ἔτι πάτρια μέλαθρα[1]
καὶ τὰν Χαλκίοικον[1] *ὀλβιεῖς.*[1]

II.—1. Derive or decompound the words to which the figure (1) is attached, elucidating the rules of word-building, noticing peculiarities, and remarking upon the accentuation of such words as Ἑλλανίδες, ἀφανές, κολύπονον, πολυκτόνον, πολυπλανής, &c.

2. (*a*) Do you notice any Dorism in the above lines besides the use of ᾱ instead of η? (*b*) How do you account for the admission of Doric forms into the lyric portions of Attic tragedy?

3. Single out some of the words which you believe to be exclusively poetic, and substitute their prosaic counterparts.

4. Explain the several references in the extract to the parents, brothers, and husband of Helenē, and to her own story as treated in this play.

[N.B.—At least one question is to be answered in order to pass the Examination.]

SECOND YEAR STUDENTS.

I.—Translate the following paragraph from the Second Book of Herodotus:—

Ἐς Σάϊν' δὲ πόλιν ἐπεὰν[1] συλλεχθέωσι,[1] τῆς θυσίης ἐν τῇ νυκτὶ λύχνα[2] καίουσι πάντες πολλὰ ὑπαίθρια[2] περὶ τὰ δώματα κύκλῳ· τὰ δὲ λύχνα ἐστὶ ἰμβάφια[2] ἔμπλεα[1] ἁλὸς καὶ ἐλαίου· ἔπιπολῆς[2] δὲ ἔπεστι αὐτὸ τὸ ἐλλύχνιον. καὶ τοῦτο καίεται παννύχιον. καὶ τῇ ὀρτῇ[1] οὔνομα[1] κέεται[1] "λυχνοκαΐη."[1] οἳ δ' ἂν μὴ ἔλθωσι τῶν Αἰγυπτίων ἐς τὴν πανήγυριν[2] ταύτην, φυλάσσοντες τὴν νύκτα τῆς θυσίης καίουσι καὶ αὐτοὶ πάντες τὰ λύχνα. καὶ οὕτω οὐκ ἐν Σάϊ μούνῃ[1] καίεται, ἀλλὰ καὶ ἀνὰ πᾶσαν Αἴγυπτον. ὅτευ[1] δὲ εἵνεκεν[1] φῶς ἔλαχε καὶ τιμὴν ἡ νὺξ αὕτη, ἔστι ἱρὸς περὶ αὐτοῦ λόγος λεγόμενος. ἐς δὲ Ἡλίου πόλιν καὶ Βουτοῦν[1] θυσίας μούνας ἐπιτελέουσι[1] φοιτέοντες.[1] ἐν δὲ Παπρήμι θυσίας μὲν καὶ ἱρά, κατάπερ[1] καὶ τῇ ἄλλῃ, ποιεῦσι.[1] εὖτ'[1] ἂν σὲ γίνηται[1] καταφερὴς[1] ὁ ἥλιος, ὀλίγοι μέν τινες τῶν ἱρέων περὶ τὤγαλμα[1] πεπονέαται, οἱ δὲ πολλοὶ αὐτῶν ἐκ ξύλων κορύνας ἔχοντες ἑστᾶσι τοῦ ἱροῦ ἐν τῇ ἐσόδῳ· ἄλλοι σὲ εὐχωλὰς ἐπιτελέοντες, πλεῦνες[1] χιλίων ἀνδρῶν, ἕκαστοι ἔχοντες ξύλα καὶ οὗτοι, ἐπὶ τὰ ἕτερα ἀλέες[1] ἑστᾶσι. τὸ δὲ ἄγαλμα, ἐὸν ἐν νηῷ[1] μικρῷ ξυλίνῳ κατακεχρυσωμένῳ, προεκκομίζουσι τῇ προτεραιῇ[1] ἐς ἄλλο οἴκημα ἱρόν. οἱ μὲν δὴ ὀλίγοι οἱ περὶ τὤγαλμα λελειμμένοι ἕλκουσι τετράκυκλον[2] ἅμαξαν[2] ἄγουσαν τὸν νηόν τε καὶ τὸ ἐν τῷ νηῷ ἐνεὸν[1] ἄγαλμα· οἱ δὲ οὐκ ἐῶσι, ἐν τοῖσι προπυλαίοισι ἑστεῶτες,[1] ἐσιέναι· οἱ δὲ εὐχωλιμαῖοι,[2] τιμωρέοντες[1] τῷ θεῷ, παίουσι αὐτοὺς ἀλεξομένους. ἐνθαῦτα[1] μαχη ξὸλοισι καρτερὴ[1] γίνεται· κεφαλάς τέ συναράσσονται, καί, ὡς ἐγὼ δοκέω, πολλοὶ καὶ ἀποθνήσκουσι ἐκ τῶν τρωμάτων·[1] οὐ

Appendix, No. 8.

General Class Examination.

μέντοι οἵ γε Αἰγύπτιοι ἔφασαν ἀποθνήσκειν οὐδένα. τὴν δὲ οανήγυριν ταύτην ἐκ τοῦδε νομίσαι φασὶ οἱ ἐπιχώριοι· οἰκέειν ἐν τῷ ἱρῷ τούτῳ τοῦ Ἄρεος τὴν μητέρα· καὶ τὸν Ἄρεα ἀπότροφον[3] γενόμενον ἐλθεῖν ἐξανδρωμένον[1] ἐθέλοντα τῇ μητρὶ συμμίξαι· καὶ τοὺς προπόλους τῆς μητρός, οἷα οὐκ ὀπωπότας[1] αὐτὸν πρότερον, οὐ περιορᾶν παριέναι[1] ἀλλ' ἀπερύκειν· τὸν δ' ἐξ ἄλλης πολιος[1] ἀγαγόμενον ἀνθρώπους τούς τε προπόλους τρηχέως[1] περισπεῖν[1] καὶ ἐσελθεῖν παρὰ τὴν μητέρα. ἀπὸ τούτου τῷ Ἀρεϊ ταύτην τὴν πληγὴν[1] ἐν τῇ ὁρτῇ νενομικέναι φασὶ.

II.—1. (*a*) Give the Attic forms of the words to which the figure (1) is attached; or, if any of them are not used in Attic, give their Attic equivalents. (*b*) Point out also some words which would have *ν* final (*ἐφελκυστικὸν*) in Attic; and, in regard to *hiatus*, show how the Herodotean usage differs from both the Homeric and the Attic.

2. Derive or decompound the words to which the figure (2) is attached.

3. Annex brief notes, geographical, mythological, and archaeological, on Sais, Heliopolis, Buto, Papremis, Ares, and on the rites and usages associated with them respectively in this passage.

4. Give an account of the usages at Papremis, in Attic diction and style, freely transposing and condensing the statements of Herodotus, with a view to symmetry and terseness.

I.—Translate these lines from Book II. of the *Odysseia*:—

οἳ δ' ἐπελώβευον[3] καὶ ἐκερτόμεον[3] ἐπέεσσιν.
ὧδε δέ τις εἴπεσκε[1] νέων ὑπερηνορεόντων·[2]
"ἦ μάλα Τηλέμαχος φύνον ἡμῖν μερμηρίζει.[2]
ἢ τινας ἐκ Πύλου ἄξει ἀμύντορας ἠμαθόεντος,[2]
ἢ τινας ἐκ Σπάρτηθεν,[1] ἐπεί νύ περ ἴεται αἰνῶς·
ἠὲ καὶ εἰς Ἐφύρην ἐθέλει, πίειραν[3] ἄρουραν,[3]
ἐλθεῖν, ὄφρ' ἔνθεν θυμοφθόρα[3] φάρμακ' ἐνείκῃ,[1]
ἐν δὲ βάλῃ κρητῆρι[2] καὶ ἡμέας πάντας ὀλέσσῃ."
ἄλλος δ' αὖ εἴπεσκε νέων ὑπερηνορεόντων·
"τίς' οἶδ', εἴ κε καὶ αὐτὸς ἰὼν κοίλης ἐπὶ νηὸς
τῆλε φίλων ἀπόληται ἀλώμενος, ὥσπερ Ὀδυσσεύς;
οὕτω κεν καὶ μᾶλλον ὀφέλλειεν[1] πόνον ἄμμιν.[1]
κτήματα γάρ κεν πάντα δασαίμεθα,[1] οἰκία δ' αὖτε
τούτου μητέρι δοῖμεν[1] ἔχειν ἠδ' ὅστις ὀπυίοι."
ὣς φάν.[1] ὃ δ' ὑψόροφον[3] θάλαμον κατεβήσατο[1] πατρὸς
εὐρύν, ὅθι νητὸς[2] χρυσὸς καὶ χαλκὸς ἔκειτο,
ἐσθής τ' ἐν χηλοῖσι,[2] ἅλις τ' εὐώδες[3] ἔλαιον.
ἐν δὲ πίθοι οἴνοιο παλαιοῦ ἡδυπότοιο
ἕστασαν,[1] ἄκρητον[3] θεῖον ποτὸν ἐντὸς ἔχοντες,
ἑξείης[3] ποτὶ[1] τοῖχον ἀρηρότες,[1] εἴποτ' Ὀδυσσεὺς
οἴκαδε νοστήσειε[1] καὶ ἄλγεα πολλὰ μογήσας.
κληῖσταὶ δ' ἔπεσαν[1] σανίδες πυκινῶς[3] ἁραρυῖαι[1]
δικλίδες.[2] ἦ δὲ γυνὴ ταμίη[3] νύκτας τε καὶ ἦμαρ[1]
ἔνδον ἅπαντ' ἐφύλασσε νόου πολυιδρείῃσιν,[2]
Εὐρύκλει' Ὦπος θυγάτηρ Πεισηνορίδαο,

τὴν τότε Τηλέμαχος προσέφη θάλαμόνδε[1] καλέσσας·
"μαῖ'! ἄγε δή μοι οἶνον ἐν ἀμφιφορεῦσιν[2] ἄφυσσον[1]
ἡδιστον, μετὰ τὸν λαρώτατον[2] ὃν σὺ φυλάσσεις
κεῖνον ὀϊομένη[1] τὸν κάμμορον,[2] εἴποθεν ἔλθοι
διογενὴς[3] Ὀδυσεὺς θάνατον καὶ κῆρας[1] ἀλύξας.[1]
δώδεκα δ' ἔμπλησον,[1] καὶ πώμασιν[2] ἄρσον[1] ἅπαντας.
ἐν δέ μοι ἄλφιτα[2] χεῦον[1] ἐυρραφέεσσι[2] δοροῖσιν·[2]
εἴκοσι δ' ἔστω μέτρα μυληφάτου[2] ἀλφίτου ἀκτῆς.[2]
αὐτὴ δ' οἴη[2] ἴσθι.[7] τὰ δ' ἀθρόα[2] πάντα τετύχθω·[1]
ἑσπέριος γὰρ ἐγὼν αἱρήσομαι, ὁππότε κεν δὴ
μήτηρ εἰς ὑπερῷ'[2] ἀναβῇ κοίτου[1] τε μέδηται.
εἶμι γὰρ ἐς Σπάρτην τε καὶ ἐς Πύλον ἠμαθόεντα,
νόστον πευσόμενος[1] πατρὸς φίλου, ἤν που ἀκούσω."[1]

II.—1. Parse fully and accurately every word to which the figure (1) is attached, annexing the Attic form wherever it differs.

2. Derive or decompound every word to which the figure (2) is attached, noting the principles of word-building which are exemplified in some cases.

3. State clearly, and exemplify from these lines, the rules of Homeric versification, (*a*) in regard to *hiatus*, and (*b*) in regard to a short vowel followed by a consonant which—either in pronunciation only or to the eye as well as to the ear—may be doubled.

4. Restore everywhere, in accordance with metre, analogy, and tradition, any letters which, though they commenced various words in Homeric Greek, have been left out in the text printed above.

THIRD AND FOURTH YEAR STUDENTS.

I.—Translate in a good English style the following extract from the *Timaeus* of PLATON :—

ταύτην οὖν δὴ τότε ξύμποσαν τὴν διακόσμησιν καὶ σύνταξιν ἡ θεὸς προτέρους ὑμᾶς διακοσμήσασα κατῴκισεν, ἐκλεξαμένη τὸν τοπον ἐν ᾧ γεγένησθε, τὴν εὐκρασίαν τῶν ὡρῶν ἐν αὐτῷ κατιδοῦσα, ὅτι φρονιμωτάτους ἄνδρας οἴσοι. ἆρ' οὖν φιλοπόλεμός τε καὶ φιλόσοφος ἡ θεὸς οὖσα τὸν προσφερεστάτους αὐτῇ μέλλοντα οἴσειν τόπον ἄνδρας τοῦτον ἐκλεξαμένη πρῶτον κατῴκισεν. ᾧκεῖτε δὴ οὖν νόμοις τε τοιούτοις χρώμενοι καί ἔτι μᾶλλον εὐνομούμενοι πάση τε πάντας ἀνθρώπους ὑπερβεβηκότες ἀρετῇ, καθάπερ εἰκὸς γεννήματα καὶ παιδεύματα θεῶν ὄντας. πολλὰ μὲν οὖν ὑμῶν καὶ μεγάλα ἔργα τῆς πόλεως τῇδε γεγραμμένα θαυμάζεται, πάντων μὴν ἓν ὑπερέχει μεγέθει καὶ ἀρετῇ. λέγει γὰρ τὰ γεγραμμένα ὅσην ἡ πόλις ὑμῶν ἔπαυσέ ποτε δύναμιν ὕβρει πορευομένην ἅμα ἐπὶ πᾶσαν Εὐρώπην καὶ Ἀσίαν ἔξωθεν ὁρμηθεῖσαν ἐκ τοῦ Ἀτλαντικοῦ πελάγους. τότε γαρ πορεύσιμον ἦν τὸ ἐκεῖ πέλαγος· νῆσον γὰρ πρὸ τοῦ στόματος εἶχεν, ὃ καλεῖτε ὑμεῖς "Ἡρακλέους στήλας"· ἡ δὲ νῆσος νῆσος ἅμα Λιβύης ἦν καὶ Ἀσίας μείζων, ἐξ ἧς ἐπιβατὸν ἐπὶ τὰς ἄλλας νήσους τοῖς τότ' ἐγίγνετο πορευομένοις, ἐκ δὲ τῶν νήσων ἐπὶ τὴν καταντικρὺ πᾶσαν ἤπειρον τὴν περὶ τὸν ἀληθινὸν ἐκεῖνον πόντον. τάδε μὲν γάρ, ὅσα ἐντὸς τοῦ στόματος οὗ λεγομεν, φαίνεται λιμὴν στενόν τινα ἔχων εἴσπλουν· ἐκεῖνο δὲ πέλαγος ὄντως, ἥ τε περιέχουσα αὐτὸ γῆ παντελῶς ὀρθότατ' ἂν λέγοιτο "ἤπειρος."

Appendix, No. 8.
General Class Examination.

ἐν δὲ δὴ τῇ Ἀτλαντίδι νήσῳ ταύτῃ μεγάλη συνέστη καὶ θαυμαστὴ δύναμις βασιλέων κρατοῦσα ἁπάσης τῆς νήσου πολλῶν τε ἄλλων νήσων καὶ μεῶν τῆς ἠπείρου· πρὸς δὲ τούτοις ἔτι τῶν ἐντὸς τῇδε Λιβύης μὲν ἦρχον μέχρι πρὸς Αἴγυπτον, τῆς δὲ Εὐρώπης μέχρι Τυῤῥηνίας. αὕτη δὴ πᾶσα ξυναθροισθεῖσα εἰς ἕν ἡ δύναμις τόν τε παρ' ὑμῖν καὶ τὸν παρ' ἡμῖν καὶ τὸν ἐντὸς τοῦ στόματος πάντα τόπον μιᾷ ποτ' ἐπεχείρησεν ὁρμῇ δουλοῦσθαι. τότε οὖν ὑμῶν, ὦ Σόλων! τῆς πόλεως ἡ δύναμις εἰς ἅπαντας ἀνθρώπους διαφανὴς ἀρετῇ τε καὶ ῥώμῃ ἐγένετο· πάντων γὰρ προστᾶσα εὐψυχίᾳ καὶ τέχναις ὅσαι κατὰ πόλεμον, τὰ μὲν τῶν Ἑλλήνων ἡγουμένη, τὰ δ' αὐτὴ μονωθεῖσα ἐξ ἀνάγκης τῶν ἄλλων ἀποστάντων, ἐπὶ τοὺς ἐσχάτους ἀφικομένη κινδύνους, κρατήσασα μὲν τῶν ἐπιόντων τρόπαια ἔστησε, τοὺς δὲ μήπω δεδουλωμένους διεκώλυσε δουλωθῆναι, τοὺς δὲ ἄλλους, ὅσοι κατοικροῦμεν ἐντὸς ὅρων Ἡρακλείων, ἀφθόνως ἅπαντας ἠλευθέρωσεν. ὑστέρῳ δέ χρόνῳ σεισμῶν ἐξαισίων καὶ κατακλυσμῶν γενομένων, μιᾶς ἡμέρας καὶ νυκτὸς χαλεπῆς, ἐπελθούσης τό τε παρ' ὑμῖν μάχιμον πᾶν ἀθρόον ἔδυ κατὰ γῆς, ἥ τε Ἀτλαντὶς νῆσος ὡσαύτως κατὰ τῆς θαλάσσης δῦσα ἠφανίσθη· διὸ καὶ νῦν ἄπορον καὶ ἀδιερύητον γέγονε τὸ ἐκεῖ πέλαγος, πηλοῦ κύρτα βαθέος ἐμποδὼν ὄντος, ὃν ἡ νῆσος ἰζομένη παρέσχετο.

You may add brief notes upon such phrases or statements as call for elucidation; and you may concisely comment upon the legend of Atlantis, together with its alleged relations to ancient Athens and to Egypt, as treated in the *Timaeus* and the *Critias*.

I.—Translate, in a clear and spirited style, this passage from the *Eumenides* of AESCHYLUS:—

ΑΠΟΛΛΩΝ. ἔξω, κελεύω, τῶνδε δωμάτων τάχος
χωρεῖτ', ἀπαλλάσσεσθε μαντικῶν μυχῶν·
μὴ καὶ λαβοῦσα πτηνὸν[1] ἀργηστὴν[1] ὄφιν,
χρυσηλάτου[1] θώμιγγος ἐξορμώμενον,
ἀνῆς ὑπ' ἄλγους μέλαν' ἀπ' ἀνθρώπων ἀφρόν,
ἐμοῦσα θρόμβους[1] οὓς ἀφείλκυσας φόνου.
οὗτοι δόμοισι τοῖσδε χρίμπτεσθαι πρέπει·
ἀλλ' οὗ καρανιστῆρες[1] ὀφθαλμώρυχοι[1]
δίκαι σφαγαί τε σπέρματός τ' ἀποφθοραὶ
παίδων κακοῦ τε χλοῦνις[1] ἠδ' ἀκρωνία[1]
λευσμοί[1] τε, χοὖ μύζουσιν[1] οἰκτισμὸν[1] πολὺν
ὑπὸ ῥάχιν παγέντες. ἆρ' ἀκούετε
οἵας ἑορτῆς ἔστ' ἀπόπτυστοι[1] θεοῖς
στέργηθρ' ἔχουσαι; πᾶς δ' ὑφηγεῖται τρόπος
μορφῆς. λέοντος ἄντρον αἱματορῥόφου[1]
οἰκεῖν τοιαύτας εἰκός, οὐ χρηστηρίοις[1]
ἐν τοῖσδε πλησίοισι τρίβεσθαι μύσος.
χωρεῖτ' ἄνευ βοτῆρος[1] αἰπολούμεναι.[1]
ποίμνης τοιαύτης δ' οὔτις εὐφιλὴς θεῶν.

ΧΟΡΟΣ. ἄναξ Ἄπολλον! ἀντάκουσον ἐν μέρει.
αὐτὸς σὺ τούτων οὐ μεταίτιος πέλει,
ἀλλ' εἷς τὸ πᾶν ἔπραξας ὢν παναίτιος.

ΑΠ. πῶς δή ; τοσοῦτο μῆκος ἔκτεινοι λόγου.
ΧΟ. ἔχρησας ὥστε τὸν ξένον μητροκτονεῖν.[1]
ΑΠ. ἔχρησα ποινὰς τοῦ πατρὸς πέμψαι. τί μήν ;
ΧΟ. κἄπειθ' ὑπέστης αἵματος δέκτωρ[1] νέου.
ΑΠ. καὶ προστραπέσθαι τούσδ' ἐπέστελλον δόμους.
ΧΟ. καὶ τὰς προπομπούς δῆτα τάσδε λοιδορεῖς.
ΑΠ. οὐ γὰρ δόμοισι τοῖσδε πρόσφορον μολεῖν.
ΧΟ. ἀλλ' ἔστιν ἡμῖν τοῦτο προστεταγμένον.
ΑΠ. τίς ἥδε τιμή ; κόμπασον γέρας καλόν.
ΧΟ. τοὺς μητραλοίας[1] ἐκ δόμων ἐλαύνομεν.
ΑΠ: τί γὰρ γυναικὸς ἥτις ἄνδρα νοσφίσῃ ;[1]
ΧΟ. οὐκ ἂν γένοιθ' ὅμαιμος[1] αὐθεντης φόνος.

II.—1. Derive or decompound every word to which the figure (1) is attached, noting the principles of word-building which are exemplified, and discussing any cases which may appear doubtful.

2. Discuss concisely some of the points in dispute among recent Editors of the *Eumenides;* such as the changes of scene, the evolution of the plot, the members of the chorus and of the jury, the parts ascribed to Athena and the Propompoi, the political objects supposed to have been within the poet's view, &c.

3. If any portions of the text (here printed from recent editions) seem to you to be faulty, in construction or idiom, or else in sense and consistency with the context, you are invited to correct them.

LATIN.—*Examiner, Professor Nesbitt.*

FIRST YEAR STUDENTS.

I.—Translate the following passages :—

1. Non vereor, ne quis me haec vestri adhortandi causa magnifice loqui existimet, ipsum aliter animo adfectum esse. licuit in Hispaniam provinciam meam, quo iam profectus eram, cum exercitu ire meo, ubi et fratrem consilii participem ac periculi socium haberem, et Hasdrubalem potius quam Hannibalem hostem, et minorem haud dubie molem belli : tamen, cum praeterveherer navibus Galliae oram, ad famam huius hostis in terram egressus praemisso equitatu ad Rhodanum movi castra. equestri proelio, qua parte copiarum conserendi manum fortuna data est, hostem fudi; peditum agmen, quod in modum fugientium raptim agebatur, quia adsequi terra non poteram, atque regressus ad navis erat, quanta maxime potui celeritate tanto maris terrarumque circuitu in radicibus prope Alpium huic timendo hosti obvius fui. utrum, cum declinarem certamen, improvisus incidisse videor an occurrere in vestigiis eius, lacessere ac trahere ad decernendum ? experiri iuvat, utrum alios repente Carthagenienses per viginti annos terra ediderit, an iidem sint, qui ad Aegatis pugnaverunt insulas, et quos ab Eryce duodevicenis denariis aestimatos emisistis; et utrum Hannibal hic sit aemulus itinerum Herculis, ut ipse fert, an vectigalis stipendiariusque et servus populi Romani a patre relictus : quem nisi Saguntinum scelus agitaret, respiceret profecto, si non patriam victam, domum certe patremque et foedera Hamilcaris scripta manu, qui iussus ab consule nostro praesidium deduxit ab Eryce; qui graves impositas victis Carthaginiensibus leges fremens maerensque accepit; qui decedere Sicilia, stipendium populo Romano

Appendix, No. 8.

General Class Examination.

dare pactus est. itaque vos ego, milites, non eo solum animo quo adversus alios hostes soletis pugnare velim, sed cum indignatione quadam atque ira, velout si servos videatis vestros arma repente contra vos ferentes. licuit ad Erycem clausos ultimo supplicio humanorum, fame interficere; licuit victricem classem in Africam traicere, atque intra paucos dies sine ullo certamine Carthaginem delere:—veniam dedimus precantibus, emisimus ex obsidione, pacem cum victis fecimus, tutelae deinde nostrae duximus, cum Africo bello urgerentur. pro his impertitis furiosum iuvenem sequentes oppugnatum patriam nostram veniunt.—Livy, xxi., 41.

(*a*) Explain the constructions "vestri adhortandi," "qua parte copiarum," "quem nisi . . . respiceret."

(*b*) What is the distinction between "vectigalis" and "stipendiarius?"

(*c*) Criticise the historical statements put into the mouth of Scipio.

2. Utinam, Quirites, virorum fortium atque innocentium copiam tantam haberetis, ut haec vobis deliberatio difficilis esset, quemnam potissimum tantis rebus ac tanto bello praeficiendum putaretis! Nunc vero quum sit unus Cn. Pompeius, qui non modo eorum hominum, qui nunc sunt, gloriam, sed etiam antiquitatis memoriam virtute superarit, quae res est quae cuiusquam animum in hac causa dubium facere possit? Ego enim sic existimo, in summo imperatore quattuor has res inesse oportere, scientiam rei militaris, virtutem, auctoritatem, felicitatem. Quis igitur hoc homine scientior umquam aut fuit aut esse debuit? qui e ludo atque e pueritiae disciplinis bello maximo atque acerrimis hostibus ad patris exercitum atque in militiae disciplinam profectus est, qui extrema pueritia miles in exercitu fuit summi imperatoris, ineunte adolescentia maximi ipse exercitus imperator, qui saepius cum hoste conflixit quam quisquam cum inimico concertavit, plura bella gessit quam caeteri legerunt, plures provincias confecit quam alii concupiverunt, cuius adolescentia ad scientiam rei militaris non alienis praeceptis, sed suis imperiis, non offensionibus belli, sed victoriis, non stipendiis, sed triumphis est erudita. Quod denique genus esse belli potest, in quo illum non exercuerit fortuna rei publicae? Civile, Africanum, Transalpinum, Hispaniense, mixtum ex civitatibus atque ex bellicosissimis nationibus, servile, navale bellum, varia et diversa genera et bellorum et hostium, non solum gesta ab hoc uno, sed etiam confecta, nullam rem esse declarant in usu positam militari, quae huius viri scientiam fugere possit.—Cicero —*De Imperio Cn. Pompei*, x.

(*a*) Explain, with dates, the allusions to the various incidents in Pompey's career.

(*b*) Write a note on the expression "mixtum ex civitatibus atque ex bellicosissimis nationibus."

(*c*) Give a brief sketch of the Mithridatic war so far as is necessary to illustrate the speech "de imperio Cn. Pompei."

3. Haec igitur lex in amicitia sanciatur, ut neque rogemus res turpes nec faciamus rogati. Turpis enim excusatio est et minime accipienda quum in caeteris peccatis tum si quis contra rem publicam se amici causa fecisse fateatur. Etenim eo loco, Fanni et Scaevola, locati sumus, ut nos longe prospicere oporteat futuros casus rei publicae. Deflexit iam aliquantulum de spatio curriculoque consuetudo maiorum. Ti. Gracchus regnum occupare conatus est vel regnavit is quidem paucos menses. Num quid simile populus Romanus audierat aut viderat? Hunc etiam post mortem secuti amici et propinqui quid in P. Scipione effecerint sine

lacrimis non quĕo dicere. Nam Carbonem quocumque modo potuimus propter recentem poenam Ti. Gracchi sustinuimus. De C. Gracchi autem tribunatu quid exspectem non libet augurari: serpit deinde res, quae proclivius ad perniciem, quum semel coepit, labitur. Videtis in tabella iam ante quanta sit facta labes, primo Gabinia lege, biennio autem post Cassia. Videre iam videor populum a senatu disiunctum, multitudinis arbitrio res maximas agi. Plures enim discent quem ad modum haec fiant quam quem ad modum his resistatur. Quorsum haec? quia sine sociis nemo quidquam tale conatur. Praecipiendum est igitur bonis ut, si in eius modi amicitias ignari casu aliquo inciderint, ne existiment ita se adligatos, ut ab amicis in magna aliqua re [publica] peccantibus non discedant: improbis autem poena statuenda est, nec vero minor iis, qui sequuti erunt alterum, quam iis, qui ipsi fuerint impietatis duces.—CICERO—*Laelius*, xii.

Appendix, No. 8.

General Class Examination.

What were the provisions of the "leges tabellariae" of Gabinius and Cassius respectively, and in what years were they proposed?

II.—Translate into Latin prose:—

During the minority of the latter, the Romans treated him with unexampled injustice. They first took from him Phrygia, because their attention had been directed to the importance of that state. This he never forgot. But they also endeavoured to injure him otherwise in every possible way, and to limit his powers more and more. Under these circumstances he grew up thirsting for revenge. During the Cimbrian war, the Romans had no time to keep their eyes on him. He was a man of great mind, and having now grown up to the age of manhood, he formed a profound plan of revenge. He first tried to strengthen his kingdom. Thus he carried on wars on the Bosphorus as far as the Borysthenes, and there subdued all the nations as far as the Don. His general, Neoptolemus, built fortresses there. His whole plan was directed against Rome; and had he been a contemporary of Hannibal, it is very probable that Rome would have been crushed. If he had only had another people than Asiatics, the destruction of Rome would have been possible. All his designs were excellent, but all failed in their execution, on account of the miserable character of his subjects. His plan, even at an early period, was to throw the Bastarnae and Getae from Dacia upon Italy, while he himself was to attack the Romans in Asia, and to expel them from those countries.

Translate into Latin prose:—

1. There are and have been philosophers who taught that God had no management at all of human affairs; there are also other philosophers, and these too great and noble, who think the whole world is governed and ruled by a divine intelligence.

2. This I will very briefly say, that no one was ever so shameless as to dare to wish from the immortal Gods so many and great things as they have bestowed upon Cn. Pompēius.

3. The consul not only sent corn to Rome, but collected it at Catana, that it might thence be furnished to the army which was to have its summer camp at Tarentum.

4. Caligula was very near removing the busts of Virgil and Livy from all the libraries.

5. Gracchus, when surrounded by the multitude of the enemy, sprung

Appendix, No. 8.

General Class Examination.

from his horse and ordered the multitude to do the same, and animated them, saying, Let us honour by our bravery the only thing which fortune has left us. (In this sentence turn the *oratio recta* into the *oratio obliqua*).

FIRST YEAR STUDENTS—HONORS.

I. Translate the following passages, adding brief notes where you deem it necessary :—

1. Infandum! sistunt amnes, terraeque dehiscunt,
Et maestum illacrimat templis ebur, aeraque sudant;
Proluit insano contorquens vertice silvas
Fluviorum rex Eridanus, camposque per omnes
Cum stabulis armenta tulit; nec tempore eodem
Tristibus aut extis fibrae apparere minaces,
Aut puteis manare cruor cessavit, et altae
Per noctem resonare lupis ululantibus urbes;
Non alias coelo ceciderunt plura sereno
Fulgura, nec diri toties arsere cometae.
Ergo inter sese paribus concurrere telis
Romanas acies iterum videre Philippi,
Nec fuit indignum superis, bis sanguine nostro
Emathiam et latos Haemi pinguescere campos.
Scilicet et tempus veniet, quum finibus illis
Agricola, incurvo terram molitus aratro,
Exesa inveniet scabra robigine pila,
Aut gravibus rastris galeas pulsabit inanes,
Grandiaque effossis mirabitur ossa sepulcris.
Dî patrii, Indigetes, et Romule Vestaque mater,
Quae Tuscum Tiberim et Romana Palatia servas,
Hunc saltem everso iuvenem succurrere saeclo
Ne prohibete!

VIRGIL—*Georgics*, Lib. i.

2. Ennius, et sapiens et fortis et alter Homerus,
Ut critici dicunt, leviter curare videtur,
Quo promissa cadant et somnia Pythagorea.
Naevius in manibus non est et mentibus haeret
Paene recens? Adeo sanctum est vetus omne poëma.
Ambigitur quoties uter utro sit prior; aufert
Pacuvius docti famam senis, Accius alti,
Dicitur Afrani toga convenisse Menandro,
Plautus ad exemplar Siculi properare Epicharmi,
Vincere Caecilius gravitate, Terentius arte.
Hos ediscit et hos arto stipata theatro
Spectat Roma potens, habet hos numeratque poëtas
Ad nostrum tempus Livi scriptoris ab aevo.
Interdum vulgus rectum videt; est ubi peccat.
Si veteres ita miratur laudatque poëtas,
Ut nihil anteferat, nihil illis comparet: errat;
Si quaedam nimis antique, si pleraque dure
Dicere credit eos, ignave multa fatetur:
Et sapit et mecum facit et Iove iudicat aequo.
Non equidem insector delendaque carmina Livi
Esse reor, memini quae plagosum mihi parvo
Orbilium dictare; sed emendata videri

Pulcharaque et exactis minimum distantia miror.
Inter quae verbum emicuit si forte decorum et
Si versus paullo concinnior unus et alter :
Iniuste totum ducit venditque poëma.

HORACE, Lib. ii., *Epist.* i.

Ignotum tragicae genus invenisse Camenae
Dicitur et plaustris vexisse poëmeta Thespis
Quae canerent agerentque peruncti faecibus ora.
Post hunc personae pallaeque repertor honestae
Aeschylŭs et modicis instravit pulpita tignis
Et docuit magnumque loqui nitique cothurno.
Successit vetus his comoedia, non sine multa
Laude ; sed in vitium libertas excidit et vim
Dignam lege regi : lex est accepta, chorusque
Turpiter obticuit sublato iure nocendi.
Nil intentatum nostri liquere poëtae ;
Nec minimum meruere decus, vestigia Graeca
Ausi deserere et celebrare domestica facta,
Vel qui praetextas vel qui docuere togatas.
Nec virtute foret clarisve potentius armis,
Quam lingua, Latinum, si non offenderet unum-
quemque poëtarum limae labor et mora. Vos, o
Pompilius sanguis, carmen reprehendite, quod non
Multa dies et multa litura coërcuit atque
Perfectum decies non castigavit ad unguem.

HORACE, Lib. ii., *Epist.* iii.

3. *Sy.* Ehem Démea, haud aspéxeram te : quid agitur ?
De. Quid agátur ? nostram néqueo mirarí satis
Ratiónem. *Sy.* Est hercle inépta, ne dicám dolo,
Absúrda. Piscis céteros purgá, Dromo :
Congrum ístum maxumum ín aqua sinito lúdere
Tantísper : ubi ego rédiero, exossábitur :
Prius nólo. *De.* Haecin flagítia ! *Sy.* Mihi quidem *haú* placent,
Et clámo saepe. Sálsamenta haec, Stéphanio,
Fac mácerentur púlchre. *De.* Di uostrám fidem,
Vtrúm studione id síbi habet an laudí putat
Fore, sí perdiderit gnátum ? Uae miseró mihi
Vidére uideor iám diem illum, quom híne egens
Profúgiet aliquo mílitatum. *Sy.* O Démea,
Istúc est sapere, nón quod ante pedés modost
Vidére, sed etiam ílla quae futúra sunt
Prospícere. *De.* Quid ? istaec iám penes uos psáltriast ?
Sy. Ellam íntus. *De.* Eho, an domíst habiturus ? *Sy.* Crédo, ut est
Deméntia. *De.* Haecin fíeri ! *Sy.* Inepta lénitas
Patris ét facilitas práua. *De.* Fratris mé quidem
Pudét pigetque. *Sy.* Nímium inter uos, Démea,
(Non quía ades praesens díco hoc) perniinium ínter est.
Tu, quántus quantu's, níl nisi sapiéntia es,
Ille sómnium. *Num* síneres uero illúm tuom
Facere haéc ? *De.* Sinerem illum ? aut nón sex tostis mensibus
Prius ólfecissem, quám ille quicquam coéperet ?
Sy. Vigilántiam tuam tú mihi narras ? *De.* Sic siet
Modo ut núnc est, quaeso. *Sy.* Vt quisque suom uolt ésse, itast.

TERENCE—*Adelphi*, iii., 3.

Appendix, No. 8.

General Class Examination.

II.—1. Give, with dates, a sketch of the early Roman literature, so far as is necessary to illustrate the above extracts from Horace.

2. Criticise Horace's sketch of the history of the Greek stage.

3. In what writer do we first find the Epistle to the Pisos designated as "*de arte poetica liber?*" Compare the Epistle, as to its scope, with that to Augustus; give an analysis of its contents; and state and justify your opinion as to the appropriateness of the title by which it is usually known.

4. What is remarkable, looking at the object of the Epistle to the Pisos, in the introduction of precepts respecting the satyric drama? A transposition proposed by Spengel removes what had long been a stumbling-block of critics in this part of the Epistle.

5. Mention the principal sources from which Virgil borrowed in his composition of the Georgics? What evidence, internal and external, have we as to the date of the composition?

6. Enumerate, exemplify, and account for the principal metrical licences in the Roman comic poets.

SECOND YEAR STUDENTS.

I.—Translate the following extracts:—

1. Dictator contionibus se abstinuit in actione minime popularis. ne in senatu quidem satis aequis auribus audiebatur tunc, cum hostem verbis extolleret, bienniique clades per temeritatem atque inscientiam ducum acceptas referret; magister equitum, quod contra dictum suum pugnasset, rationem diceret reddendam esse. si penes se summa imperii consiliique sit, prope diem effecturum, ut sciant homines, bono imperatore haud magni fortunam momenti esse, mentem rationemque dominari; et in tempore et sine ignominia servasse exercitum quam multa milia hostium occidisse maiorem gloriam esse. huius generis orationibus frusta habitis et consule creato M. Atilio Regulo, ne praesens de iure imperii dimicaret. pridie quam rogationis ferendae dies adesset, nocte ad exercitum abiit. luce orta cum plebis concilium esset, magis tacita invidia dictatoris favorque magistri equitum animos versabat, quam satis audebant homines ad suadendum quod vulgo placebat prodire; et favore superante auctoritas tamen rogationi deerat. unus inventus est suasor legis C. Terentius Varro, qui priore anno praetor fuerat, loco non humili solum sed etiam sordido ortus. patrem lanium fuisse ferunt, ipsum institorem mercis, filioque hoc ipso in servilia eius artis ministeria usum. Is iuvenis, ut primum ex eo genere quaestus pecunia a patre relicta animos ad spem liberalioris fortunae fecit, togaque et forum placuere, proclamando pro sordidis hominibus causisque adversus rem et famam bonorum primum in notitiam populi, deinde ad honores pervenit: quaesturaque et duabus aedilitatibus, plebeia et curuli, postremo et praetura perfunctus iam ad consulatus spem cum attolleret animos, haud parum callide auram favoris popularis ex dictatoria invidia petit, scitique plebis unus gratiam tulit. omnes eam rogationem quique Romae quique in exercitu erant, aequi atque iniqui, praeter ipsum dictatorem in contumeliam eius latam acceperunt: ipse, qua gravitate animi criminantes se ad multitudinem inimicos tulerat, eadem et populi in se saevientem iniuriam tulit, acceptisque in ipso itinere litteris senatus consulti de aequato imperio, satis fidens haudquaquam cum imperii iure artem imperandi aequatam, cumque invicto a civibus hostibusque animo ad exercitum rediit.—Livy, xxii., 25–26.

(*a.*) What is the construction of "bono imperatore?"

(*b.*) Mention and illustrate by examples the changes of mood which take place when a speech is transferred from the *oratio recta* to the *oratio obliqua*.

(*c.*) Explain the force of the word "toga" in the phrase "togaque et ferum."

(*d.*) What is the distinction implied between "honores" and "quæstura quæque," &c.?

(*e.*) Mention some emendations which have been proposed in the last sentence.

2. Interea pavidam volitans pennata per urbem
Nuntia Fama ruit, matrisque allabitur aures
Euryali. At subitus miserae calor ossa reliquit;
Excussi manibus radii revolutaque pensa.
Evolat infelix, et femineo ululatu,
Scissa comam, muros amens atque agmina cursu
Prima petit, non illa virûm, non illa pericli
Telorumque memor; coelum dehinc questibus implet:
"Hunc ego te, Euryale, adspicio? tune ille senectae
Sera meae requies, potuisti linquere solam
Crudelis? nec te, sub tanta pericula missum,
Affari extremum miserae data copia matri?
Heu, terra ignota canibus date praeda Latinis
Alitibusque iaces! nec te in tua funera mater
Produxi, pressive oculos, aut vulnera lavi,
Veste tegens, tibi quam noctes festina diesque
Urgebam et tela curas solabar aniles.
Quo sequar, aut quae nunc artus avulsaque membra
Et funus lacerum tellus habet? Hoc mihi de te,
Nate, refers? hoc sum terraque marique secuta?
Figite me, si qua est pietas; in me omnia tela
Coniicite, o Rutuli; me primam absumite ferro;
Aut tu, magne pater divûm, miserere, tuoque
Invisum hoc detrude caput sub Tartara telo,
Quando aliter nequeo crudelem abrumpere vitam."

VIRGIL—*Aeneid*, ix, 473–497.

Write notes on the expressions "date praeda Latinis," &c., and "nec te in tua funera mater Produxi."

II.—Translate into Latin prose:—

Sylla had a general taste for literature; he was intimately acquainted with the writers of Greece; he delighted in the society of men of talent; and he was himself long and carefully engaged in recording the history of his own actions; yet no man was ever more stained with cruelty, nor was ever any more degraded by habitual and gross profligacy. Nor is this at all wonderful if we consider that the intellectual faculties, like the sensual, are gratified by exercise; and that the pleasure derived from the employment of talent is quite distinct from the application of the lessons taught by the understanding to the government of the affections and the conduct. In all men whose mental powers are at all considerable, the indulgence of them is as much an object of mere natural appetite, as the gratification of hunger and thirst is to the mere mass of mankind; and it is only because it is less common that it is regarded as conferring on the character a much superior value.

Appendix, No. 8.

General Class Examination.

Translate the following passages, adding brief notes where you deem it necessary:—

1. Videte, iudices, quantae res his testimoniis sint confectae. Primum certe liberatur Milo non eo consilio profectus esse, ut insidiaretur in via Clodio: quippe, si ille obvius ei futurus omnino non erat. Deinde—non enim video cur non meum quoque agam negocium—scitis, iudices, fuisse qui in hac rogatione suadenda dicerent Milonis manu caedem esse factam, consilio vero maioris alicuius. Me videlicet latronem ac sicarium abiecti homines et perditi describebant. Iacent suis testibus ii, qui Clodium negant eo die Romam, nisi de Cyro audisset, fuisse rediturum. Respiravi, liberatus sum, non vereor ne, quod ne suspicari quidem potuerint, videar id cogitasse. Nunc persequar caetera. Nam occurrit illud: Igitur ne Clodius quidem de insidiis cogitavit, quoniam fuit in Albano mansurus. Si quidem exiturus ad cædem e villa non fuisset. Video enim illum, qui dicatur de Cyri morte nunciasse, non id nunciasse, sed Milonem appropinquare. Nam quid de Cyro nunciaret, quem Clodius Roma proficiscens reliquerat morientem? Una fui, testamentum Cyri simul obsignavi cum Clodio: testamentum autem palam fecerat et illum heredem et me scripserat. Quem pridie hora tertia animam efflantum reliquisset, eum mortuum postridie hora decima denique ei nunciabatur? Age, sit ita factum: quae causa cur Romam properaret? cur in noctem se coniiceret? Quid adferebat causam festinationis? Quod heres erat? Primum erat nihil cur properato opus esset: deinde si quid esset, quid tandem erat quod ea nocte consequi posset, amitteret autem, si postridie Romam mane venisset? Atque ut illi nocturnus ad urbem adventus vitandus potius quam expetendus sic Miloni, quum insidiator esset, si illum ad urbem noctu accessurum fuit, sciebat, subsidendum atque exspectandum fuit. Noctu, insidioso et pleno latronum in loco occidisset: nemo ei neganti non credidisset, quem esse omnes salvum etiam confitentem volunt. Sustinuisset hoc crimen primum ipse ille latronum occultator et receptor locus, tum neque muta solitudo indicasset neque caeca nox ostendisset Milonem: deinde multi ab illo violati, spoliati, bonis expulsi, multi haec etiam timentes in suspicionem caderent, tota denique rea citaretur Etruria. Atque illo die certe Aricia rediens devertit Clodius ad se in Albanum. Quod ut sciret Milo illum Ariciae fuisse, suspicari tamen debuit eum, etiam si Romam illo die reverti vellet, ad villam suam, quae viam tangeret, deversurum. Cur neque ante occurrit, ne ille in villa resideret, nec eo in loco subsedit, quo ille noctu venturus esset?—Cicero, *pro Milone*, 18–19.

(*a*) Analyze the sentence "Deinde—non enim video," &c.

(*b*) Describe the Roman forms of bequest so far as is necessary to explain the transaction related in the text; and mention some modifications which they underwent in later times.

2. LV. At operam perire meam sic et te haec corde spernere
Perpeti nequeo: semul me parum pudere te piget.
Et postremo, nisi me auscultas atque hoc ut dico facis,
Tute pone te latebis facile, ne inueniât te honos:
In oculto iacebis, quom te maxume clarum uoles.
Pernoui equidem, Lesbonice, ingenium tuum ingenuom ad modum:
Scio te sponte non tuapte errasse, set amorem tibi
Pectus opscurasse: atque ipse amoris teneo omnis uias.
Itast amor, ballista ut iacitur: nil sic celerest neque uolat:
Atque is mores heminum moros et morosos ecficit.
Minus placet quod consuadetur: quod dissuadetur placet.
Quom inopiast, cupias: quando eius copiast, tum non uelis.

[Ille qui aspellit, is compellit: ille qui consuadet, uotat.]
Insanumst málum te in hospitium deuorti ad Cupidinem.
Set te moneo hoc etiam atque etiam ut reputes quid facere expetas.
Si istuc conare ut [nunc] facis indicium, tuum incendes genus:
Tum igitur aquae erit tibi cupido, genus qui restinguas tuum.
Atqui si eris nanctus, proinde ut corde amantes sunt cati,
Ne scintillam quidem relinques, genus qui congliscat tuum.
LE. Facile inuentust: dabitur ignis, tam etsi ab inimico petas.
Set tu obiurgans me a peccatis rapis deteriorem in uiam
Meam sororem tibi dem suades sine dote. aha, non conuenit
Me qui abusus tantam rem sum patriam porro in ditiis
Esse agrumque habere, egere illam autem, ut merito me oderit.
Numquam erit aliensis grauis qui suis se concinnat leuem.
Sicut dixi faciam: nollo te iactari diutius.

PLAUTUS—*Trinummus*, iii. 2, 34–59.

(*a*) Write brief notes on the following words and phrases:—Nummorum Philippeum ad tria milia—Advorsum quam ejus me opsecravisset pater—simitu—ab re consulit—ne tis alios misereat—nequiquam—eapse—cena hac annonast sine sacris hereditas—haud ineuscheme astiterunt.

(*b*) Hic agit magis ea argumento et vorsus meliores facit.
Etiam ob stultitiam tuam te tueris? multabo mina.
Explain these lines. There is internal evidence of their spuriousness.

1. Give a sketch of the rise and history of Roman comedy, distinguishing its several species, and mentioning the most successful cultivators of each.

2. Give a brief account of the life and writings of Plautus. On what authorities is the modern recension of the text based?

3. Quote any ancient criticisms of Plautus you may remember. Account for the disparaging judgment pronounced by Horace.

4. Classify, give examples of, and account for the metrical licences found in Plautus.

ROMAN HISTORY.

1. What circumstances led to the organization of the Roman Provinces? Describe the organization as it originally existed, and as it was subsequently modified. What is the extent of the "Italy" to which "the provinces" are opposed? Primitive meaning of the word "provincial?"

2. Give some account of the Celtish tribes inhabiting Northern Italy, and mention the steps by which they were brought under the dominion of Rome.

3. Criticise Livy's account of Hannibal's passage of the Alps.

4. Describe briefly the battles of Trebia, Trasimene, and Cannæ, and state the results of the last within Italy and without.

5. Among the indications of the decay of the Roman Republic in the sixth century, Mommsen mentions the alarming increase of popular amusements—what is the justification of this statement?

6. Give a brief sketch of the career of Cato, the leader of the reform movement at this time.

7. Amongst the most noteworthy attempts made to counteract the spread of decay, assignations of land occupy a foremost place—enumerate the most important of them.

8. Sum up the efforts at reform.

Appendix, No. 8.

General Class Examination.

THIRD YEAR STUDENTS—HONORS.

I. Translate :—

1. Nec vero ignoro varias philosophorum fuisse sententias, eorum dico, qui summum bonum, quod ultimum appello, in animo ponerent. Quas quamquam vitiose quidam secuti sunt, tamen non modo iis tribus, qui virtutem a summo bono segregaverunt, quum aut voluptatem aut vacuitatem doloris aut prima naturae in summis bonis ponerent, sed etiam alteris tribus, qui mancam fore putaverunt sine aliqua accessione virtutem, ob eamque rem trium earum rerum, quas supra dixi, singuli singulas addiderunt, his tamen omnibus eos antepono, cuicuimodi sunt, qui summum bonum in animo atque in virtute posuerunt. Sed sunt tamen perabsurdi et ii, qui cum scientia vivere ultimum bonorum, et qui nullam rerum differentiam esse dixerunt, atque ita sapientem beatum fore, nihil aliud alii momento ullo anteponentem, ut quidam Academici constituisse dicuntur, extremum bonorum et summum munus esse sapientis, obsistere visis adsensusque suos firme sustinere. His singulis copoise responderi solet, sed quae perspicua sunt, longa esse non debent. Quid autem apertius quam, si selectio nulla sit ab iis rebus, quae contra naturam, sint, earum rerum, quae sint secundum naturam, tollatur omnis ea, quae quaeratur laudeturque, prudentia? Circumscriptis igitur iis sententiis, quas posui, et iis, si quae similes earum sunt, relinquitur ut summum bonum sit vivere scientiam adhibentem earum rerum, quae natura eveniant, seligentem quae secundum naturam et quae contra naturam sint reiicientem, id est, convenienter congruenterque naturae vivere. Sed in caeteris artibus quum dicitur *artificiose*, posterum quodam modo et consequens putandum est, quod illi *ἐπιγεννηματικὸν* appellant : quum autem in quo *sapienter* dicimus, id a primo rectissime dicitur. Quidquid enim a sapiente proficiscitur, id continuo debet expletum esse omnibus suis partibus : in eo enim positum est id, quod dicimus esse expetendum. Nam ut peccatum est patriam prodere, parentes violare, fana depeculari, quae sunt in effectu, sic timere, sic maerere, sic in lubidine esse peccatum est etiam sine effectu. Verum ut haec non in posteris et in consequentibus, sed in primis continuo peccata sunt, sic ea, quae proficiscuntur a virtute, susceptione prima, non perfectione recta sunt iudicanda.—CICERO—*De Finibus*, lib. iii., cap. 9.

2. Postea tuus ille Poenulus—scis enim Citieos, clientes tuos, e Phoenica profectos—homo igitur acutus, causam non obtinens, repugnante natura, verba versare coepit, et primum rebus iis, quas nos bonas dicimus, concessit, ut haberentur aptae [*et*] habiles et ad naturam accommodatae, faterique coepit sapienti, hoc est, summe beato, commodius tamen esse, si ea quoque habeat, quae bona non audet appellare, naturae accommodata esse concedit, negatque Platonem, si sapiens non sit, eadem esse in causa qua tyrannum Dionysium : huic mori optimum esse propter desperationem sapientiae, illi propter spem vivere : peccata autem partim esse tolerabilia, partim nullo modo, propterea quod ali peccata plures, alia pauciores quasi numeros officii praeterirent : iam insipientes alios ita esse, ut nullo modo ad sapientiam possent pervenire, alios, qui possent, si id egissent, sapientiam consequi. Hic loquebatur aliter atque omnes, sentiebat idem quod caeteri. Nec vero minoris aestimanda ducebat ea, quae ipse bona negaret esse, quam illi, qui ea bona esse dicebant. Quid igitur voluit sibi, qui illa mutaverit? Saltem aliquid de pondere detraxisset, et paullo minoris aestimavisset ea quam Peripatetici, ut sentire quoque aliud, non solum dicere videretur. Quid? de ipsa beata vita, ad quam omnia referuntur, quae dicitis? Negatis

rum esse, quae expleta sit iis rebus omnibus, quas natura desideret, totamque eam in una virtute ponitis, quumque omnis controversia aut de re solcat aut de nomine esse, utraque earum nascitur, si aut res ignoratur aut erratur in nomine. Quorum si neutrum est, opera danda est ut verbis utamur quam usitatissimis et quam maxime aptis, id est, rem declarantibus. Num igitur dubium est quin, si in re ipsa nihil peccatur a superioribus, verbis illi commodius utantur? Videamus igitur sententias eorum, tum ad verba redeamus.—CICERO—*De Finibus*, lib. iv., cap. 20.

3. Ista similia non sunt, Cato: in quibus quamvis multum processeris, tamen illud in eadem causa est, a quo abesse velis, donec evaseris. Nec enim ille respirat, ante quam emersit, et catuli aeque caeci, prius quam dispexerunt, ac si ita futuri semper essent. Illa sunt similia: Hebes acies est cuipiam oculorum, corpore alius languescit: hi curatione adhibita levantur in dies: valet alter plus cotidie, alter videt. His similes sunt omnes, qui virtuti student: levantur vitiis, levantur erroribus. Nisi forte censes Ti. Gracchum patrem [*non*] beatiorem fuisse quam filium, quum alter stabilire rem publicam studuerit, alter evertere. Nec tamen ille erat sapiens—quis enim hoc aut quando aut ubi aut unde?—sed quia studebat laudi et dignitati, multum in virtute processerat. Conferam avum tuum, Drusum, cum C. Graccho eius fere aequali. Quae hic rei publicae vulnera imponebat, eadem ille sanabat.—CICERO—*De Finibus*, lib. iv., cap. 24.

1. (*a.*) Mention the three philosophers of whom it is said "virtutem a bono segregaverunt," and the second group who are described as considering virtue incomplete "sine aliqua accessione."

(*b.*) By whom was the supreme good placed in knowledge: and who denied all difference between things?

(*c.*) Give the Greek equivalents of the expressions "visis obsistere" and "adsensus sustinere;" and of the Stoical definition of the Supreme Good. Who was the founder of the sect which inculcated the former precepts?

(*d.*) Explain the use of the word "prudentia" in the first extract. What is required to make the sentence in which it is found grammatically correct?

(*e.*) Show from the Stoical point of view the propriety of the expression "in *caeteris* artibus;" and explain the distinction drawn between virtue and the arts in general.

2. (*a.*) Explain the allusions in "ille Pœnulus" and "clientes tuos."

(*b.*) The view of suicide here presented is inconsistent with the Stoical doctrine on the subject as stated in the preceding book?

(*c.*) "A superioribus"—who are especially referred to? Point out the difference between the Peripatetics and Stoics in the definition of the Good.

3. (*a.*) What is the point which the similes in the text were used to illustrate?

(*b.*) Explain the historical allusions, and trace the relationship between Cato and Drusus.

II.—Translate into Latin Prose:—

What reason can be assigned for the fact, that while the wishes of every individual are by the very guidance and impulse of nature directed towards what is good, so small a portion of mankind attain to what is

Appendix, No. 8.
General Class Examination.

really such? That such is the case is evident: for this desire of good is plainly natural: now, that which is natural must exist in the whole race: it follows, then, that none, however perverted his mind, can fail to direct his every design and project to that which is good, or which he considers to be so. Now, there are four things which I would notice as the causes by which most men are prevented from the attainment of what is really great and good. In some it is error of judgment, and that in two ways: either they are shackled by false views, and so, passing over what is really good, they embrace some delusive and profitless object; or having decided truly enough what ought to be the object of their pursuit, they set about attaining it in other ways but the right. In another class it is a want of perseverance and constancy: having at first set themselves to what is good, and entered on the path which leads to their object, they afterwards take another direction, either frightened by the difficulties which arise, or drawn aside by their own levity, and so either resign themselves to inactivity, or at any rate leave off the urgent pursuit of that which they had originally set before them. Others, lastly, though they form a true judgment, and persevere in the plan they have laid down, are hindered by the deficiency of their powers from attaining that which they desire.

Translate, adding brief notes where you deem it necessary:—

I.—HORACE, Odes III., V., 13–40.

Hoc caverat mens provida Reguli
Dissentientis conditionibus
Foedis et exemplo trahentis
Perniciem veniens in aevum.

Si non periret immiserabilis
Captiva pubes. "Signa ego Punicis
Affixa delubris et arma
Militibus sine caede," dixit,

"Direpta vidi; vidi ego civium
Retorta tergo brachia libero
Portasque non clausas, et arva
Marte coli populata nostro.

"Auro repensus scilicet acrior
Miles redibit?—Flagitio additis,
Damnum: neque amissos colores
Lana refert medicata fuco,

"Nec vera virtus, cum semel excidit,
Curat reponi deterioribus.
Si pugnat extricata densis
Cerva plagis, erit ille fortis,

"Qui perfidis se credidit hostibus,
Et Marte Poenos proteret altero,
Qui lora restrictis lacertis
Sensit iners timuitque mortem.

"Hic, unde vitam sumeret inscius,
Pacem duello miscuit.—O pudor!
O magna Carthago, probrosis
Altior Italiae ruinis!"

II.—JUVENAL.

1. Cur tamen hoc potius libeat decurrere campo,
Per quem magnus equos Auruncae flexit alumnus,
Si vacat et placidi rationem admittis, edam.

2. Quidquid agunt homines, votum, timor, ira, voluptas,
Gaudia, discursus, nostri est farrago libelli.
Et quando uberior vitiorum copia? quando
Hos animos? neque enim loculis comitantibus itur
Ad casum tabulae, posita sed luditur arca.
Proelia quanta illic dispensatore videbis
Armigero! simplexne furor sestertia centum
Perdere et horrenti tunicam non reddere servo?
Quis totidem erexit villas? quis fercula septem
Secreto coenavit avus? nunc sportula primo
Limine parva sedet, turbae rapienda togatae.
Ille tamen faciem prius inspicit et trepidat, ne
Suppositus venias ac false nomine poscas.
Agnitus accipies; iubet a praecone vocari
Ipsos Troiugenas; nam vexant limen et ipsi
Nobiscum. Da Praetori, da deinde Tribuno!
Sed libertinus prior est. Prior, inquit, ego adsum.
Cur timeam dubitemve locum defendere, quamvis
Natus ad Euphratem, molles quod in aure fenestrae
Arguerint, licet ipse negem? sed quinque tabernae
Quadringenta parant. Quid confert purpura maius
Optandum, si Laurenti custodit in agro
Conductas Corvinus oves? ego possideo plus
Pallante et Licinis.

3. Accipe, quae contra valeat solatia ferre,
Et qui nec Cynicos, nec Stoica dogmata legit
A Cynicis tunica distantia, non Epicurum
Suspicit exigui laetum plantaribus horti.
Curentur dubii medicis maioribus aegri:
Tu venam vel discipulo committe Philippi.
Si nullum in terris tam destabile factum
Ostendis, taceo, nec pugnis caedere pectus
Te veto, nec plana faciem contundere palma,
Quandoquidem accepto claudenda est ianua damno,
Et maiore domus gemitu, maiore tumultu
Planguntur nummi, quam funera. Nemo delorem
Fingit, in occasu vestem diducere summam
Contentus, vexare oculos humore coacto:
Ploratur lacrimis amissa pecunia veris.
Sed si cuncta vides simili fora plena querela,
Si decies lectis diversa parte tabellis,
Vana supervacui dicunt chirographa ligni,
Arguit ipsorum quos litera gemmaque princeps
Sardonychus, loculis quae custoditur eburnis:
Te nunc, delicias, extra communia censes
Ponendum, quia tu gallinae filius albae,
Nos vilis populus, nati infelicibus ovis?
Rem pateris modicam et mediocri bile ferendam,
Si flectas oculos maiora ad crimina,

Appendix No. 8.

General Class Examination

1. A certain unity of thought and purpose seems to run through the first six odes of the third book of Horace's Odes?

2. Give the scheme of the Alcaic stanza as used by Horace, and point out, *with examples*, the varieties which it admits.

3. Give a sketch of the origin and history of Roman satire.

III.—Translate into Latin Elegiac Verse :—

Here rests his head upon the lap of Earth,
A youth to fortune and to fame unknown;
Fair Science frowned not on his humble birth,
And Melancholy marked him for her own.

Large was his bounty, and his soul sincere;
Heaven did a recompense as largely send:
He gave to misery all he had, a tear;
He gained from Heaven ('twas all he wished) a friend.

No farther seek his merits to disclose,
Or draw his frailties from their dread abode,
(There they alike in trembling hope repose),
The bosom of his Father and his God.

MODERN LANGUAGES.—*Examiner, Dr. Frädersdorff.*

FIRST YEAR STUDENTS.

Translate into English :—

Quelques soldats, désespérés de tomber entre les mains des Moscovites, se précipitèrent dans le Borysthène; deux officiers du régiment de ce brave Troutfètre s'entretuèrent; le reste fut fait esclave. Ils défilèrent tous en présence du prince Menzikoff, mettant les armes à ses pieds, comme trente mille Moscovites avaient fait neuf ans auparavant devant le roi de Suède à Narva. Mais, au lieu que le roi avait alors renvoyé tous ces prisonniers moscovites, qu'il ne craignait pas, le czar retint les Suédois pris à Pultava.

Ces malheureux furent dispersés depuis dans les états du czar, mais particulièrement en Sibérie, vaste province de la grande Tartarie, qui, du côté de l'orient, s'étend jusqu'aux frontières de l'empire chinois. Dans ce pays barbare où l'usage du pain n'était pas même connu, les Suédois, devenus ingénieux par le besoin, y exercèrent les métiers et les arts dont ils pouvaient avoir quelque teinture. Alors toutes les distinctions que la fortune met entre les hommes furent bannies: l'officier qui ne put exercer aucun métier fut réduit à fendre et à porter le bois du soldat devenu tailleur, drapier, menuisier, ou maçon, ou orfèvre, et qui gagnait de quoi subsister. Quelques officiers devinrent peintres, d'autres architectes: il y en eut qui enseignèrent les langues, les mathématiques; ils y établirent même des écoles publiques, qui avec le temps devinrent si utiles et si connues qu'on y envoyait des enfants de Moscou.

Le comte Piper, premier ministre du roi de Suède, fut longtemps enfermé à Pétersbourg. Le czar était persuadé, comme le reste de l'Europe, que ce ministre avait vendu son maître au duc de Marlborough, et avait attiré sur la Moscovie les armes de la Suède, qui auraient pu pacifier l'Europe: il lui rendit sa captivité plus dure. Ce ministre

mourut quelques années après en Moscovie, peu secouru par sa famille, qui vivait à Stockholm dans l'opulence, et plaint inutilement par son roi, qui ne voulut jamais s'abaisser à offrir pour son ministre une rançon qu'il craignait que le czar n'acceptât pas; car il n'y eut jamais de cartel d'échange entre Charles et le czar.

L'empereur moscovite, pénétré d'une joie qu'il ne se mettait pas en peine de dissimuler, recevait sur le champ de bataille les prisonniers qu'on lui amenait en foule, et demandait à tout moment: "Où est donc mon frère Charles?"

Il fit aux généraux suédois l'honneur de les inviter à sa table. Entre autres questions qu'il leur fit, il demanda au général Renschild à combien les troupes du roi son maître pouvaient monter avant la bataille. Renschild répondit que le roi seul en avait la liste, qu'il ne communiquait à personne; mais que pour lui il pensait que le tout pouvait aller à environ trente mille hommes; savoir dix-huit mille Suédois, et le reste Cosaques. Le czar parut surpris, et demanda comment ils avaient pu hasarder de pénétrer dans un pays si reculé, et d'assiéger Pultava avec ce peu de monde. "Nous n'avons pas toujours été consultés, reprit le général suédois; mais, comme fidèles serviteurs, nous avons obéi aux ordres de notre maître, sans jamais y contredire."

Translate into German or French :—

When we had got within half a league of Moulins, at a little opening in the road leaping to a thicket, I discovered poor Maria sitting under a poplar. She was sitting with her elbows in her lap, and her head leaning on one side within her hand, a small brook ran at the foot of the tree.

I bade the postilion go on with the chaise to Moulins, and La Fleur to bespeak my supper, and that I would walk after him.

She was dressed in white, and much as my friend described her, except that her hair hung loose, which before was twisted in a silken net. She had, superadded likewise to her jacket, a pale green ribbon which fell across her shoulder to the waist; at the end of which hung her pipe. Her goat had been as faithless as her lover; and she had got a little dog in lieu of him, which she had kept tied by a string to her girdle; as I looked at her dog, she drew him towards her with a string—"Thou shalt not leave me, Sylvio," she said. I looked in Maria's eyes, and saw she was thinking more of her father than of her lover or her little goat; for as she uttered them, the tears trickled down her cheeks.

Translate into English :—

Der Strauß.

„Jetzt will ich fliegen!" rief der gigantische Strauß, und das ganze Volk der Vögel stand in ernster Erwartung um ihn versammelt. „Jetzt will ich fliegen!" rief er nochmals, breitete die gewaltigen Fittige weit aus und schoß, gleich einem Schiffe mit aufgespannten Segeln, auf dem Boden dahin, ohne ihn mit einem Tritte zu verlieren.

Seht da ein poetisches Bild jener unpoetischen Köpfe, die in den ersten Zeilen ihrer ungeheuren Oden mit stolzen Schwingen prahlen, sich über Wolken und Sterne zu erheben drohen und dem Staube doch immer getreu bleiben.

Lessing.

Appendix, No. 8.

General Class Examination.

Der Lohn der zukünftigen Welt.

Richte nicht den Weg deines Lebens; alle seine Fußsteige sind gut, ob du gleich das Ziel eines jeden nicht übersiehest. Wäge auch nicht die Vorschriften des Gesetzes, das du etwa sagest: dies Gebot ist groß, darum will ich's halten, denn sein Lohn wird groß sein. Gott hat dem Menschen nicht offenbaret, welches der Lohn eines jeden Werks sein werde.

Ein König wollte einen Garten pflanzen und lud die Arbeiter dazu ohne Bedingung ein; er ließ einem jeden seine Arbeit frei und fragte am Abende nur, woran er gearbeitet habe. Jeder zeigte, was er gethan dieser den Feigenbaum, jener den Palmbaum, den er gepflanzet. Der Hausvater gab einem jeden den Lohn nach seiner Arbeit, und so war sein Garten mit mancherlei Bäumen bepflanzt. Hätten die Arbeiter gewußt, welcher Baum unter allen den größten Lohn brächte, so wäre des Hausvaters Absicht nicht erreicht worden, der Garten wäre nicht mit mancherlei Bäumen bepflanzet.

Ein Weiser ward gefragt, warum ihn Gott also gesegnet habe in seinem Leben. „Weil ich die kleinste Pflicht, wie die größeste that, antwortete er, darum hat mich Gott also gesegnet."

Herder.

SECOND AND THIRD YEAR STUDENTS.

*** *Third Year* Students are expected to engage upon the papers in *any two* of the following languages (*French, German, Italian*). To Second Year Students the *French* or *German* portions only are assigned.

Translate into English :—

Bossuet avait jeté un abîme insondable entre Dieu et la création, et c'est sur les sommets inaccessibles de l'infini qu'il avait trouvé le sublime dont il foudroie toutes les grandeurs de la terre. Fénelon n'est pas moins sublime quand il réconcilie ces deux extrêmes dans une éternelle communion. Cet Etre, qui est infiniment, voit, en montant jusqu'à l'infini, tous les degrés auxquels il peut communiquer l'être. Dans chaque objet particulier, Fénelon observe sa correspondance à un certain degré d'être qui est un Dieu, et dont cet individu est lui-même une communication.

Bossuet est surtout théologien. Il voit avec douleur qu'on soit arrivé à ces temps de tentation, où l'éloquence éblouit les simples, la dialectique leur tend des lacets, une métaphysique outrée jette les esprits dans des pays inconnus. Fénelon, quoique profondément convaincu de la foi dont il est le ministre quoique effrayé aussi d'un bruit sourd d'impiété qui vient frapper ses oreilles, s'engage volontiers dans des routes nouvelles. Il honore assez la religion pour ne craindre pour elle le contact d'aucune vérité. Son traité De l'existence de Dieu, qu'on peut rapprocher avec intérêt du traité sur la Connaissance de Dieu et de soi-même, part de Descartes, comme Bossuet, mais il s'élance au delà de Malebranche et de Platon. Ajoutez que la démonstration métaphysique y repose sur une large et magnifique base : la première partie du traité est un tableau brillant de la nature, heureuse imitation de celui de Cicéron, dans la Nature des dieux. Par un attribut distinctif de sa philosophie, Fénelon, dans cet admirable ouvrage, joint sans cesse le sentiment à la pensée, et ne réussit pas moins à émouvoir qu'à convaincre.

C'est par le cœur surtout que diffèrent les deux nobles émules. La sensibilité de Bossuet disparaît dans sa grandeur : l'amour est l'âme de Fénelon, le principe de toute as vie, le foyer de son génie. Celui qui disait : Il serait à désirer que tous les bons amis s'entendissent ensemble pour mourir le même jour. Et encore : Il en coûte beaucoup d'être sensible à l'amitié, mais ceux qui ont cette sensibilité aiment mieux souffrir

que d'être insensibles, celui-là devait porter dans la religion la tendresse de saint François de Sales. Ses Lettres spirituelles produisent dans l'âme une impression de calme et de bonheur qui charme et persuade, avant même d'avoir convaincu. "Soyez avec Dieu, écrit-il, non en conversation guindée comme avec les gens qu'on voit par cérémonie, mais comme avec un bon ami qui ne vous gêne en rien et que vous ne gênez point aussi. On se voit, on se parle, on s'ecoute, on ne se dit rien, on est content d'être ensemble sans se rien dire; les deux cœurs se reposent et se voient l'un dans l'autre, et ils n'en font qu'un seul. On n'est jamais de la sorte qu'imparfaitement avec les meilleurs amis; mais c'est ainsi qu'on est parfaitement avec Dieu."

Translate into English :—

Nérine. Le roi de ce refus eût eu lieu de se plaindre,
Madame; vous devez un moment vous contraindre;
Et, quoiqu'en l'écoutant vous ne puissiez douter
Que c'est son amour seul qu'il vous faut écouter,
Votre hymen, dont enfin l'heureux moment s'avance,
Semble vous obliger à cette complaisance.
Il vous perd, et la plainte à de quoi soulager.
Ariane. Je sais qu'avec le roi j'ai tout à ménager;
J'aurais tort de l'aigrir. L'asile qu'il nous prête
Contre la voilence assure ma retraite.
D'ailleurs, tant de respect accompagne ses vœux,
Que souvent j'ai regret qu'il ne puisse être heureux.
Mais quand d'un premier feu l'ame tout occupée
Ne trouve de douceurs qu'aux traits qui l'ont frappée,
C'est un sujet d'ennui qui ne peut s'exprimer,
Qu'un amant qu'on néglige, et qui parle d'aimer.
Pour m'en rendre la peine à souffrir plus aisée,
Tandis que le roi vient, parle-moi de Thésée :
Peins-moi bien quel honneur je reçois de sa foi;
Peins-moi bien tout l'amour dont il brûle pour moi;
Offres-en à mes yeux la plus sensible image.
Nérine. Je crois que de son cœur vous avez tout l'homage;
Mais au point que de lui je vois vos sens charmés,
C'est beaucoup s'il vous aime autant que vous l'aimez.
Ariane. Et puis-je trop l'aimer, quand, tout brillant de gloire,
Mille fameux exploits l'offrent à ma mémoire?
De cent monstres par lui l'univers dégagé
Se voit d'un mauvais sang heureusement purgé.
Combien, ainsi qu'Hercule, a-t-il pris de victimes!
Combien vengé de morts! combien puni de crimes!
Procruste et Cercyon, la terreur des humains,
N'ont-ils pas succombé sous ses vaillantes mains?
Ce n'est point le vanter que ce qu'on m'entend dire;
Tout le monde le sait, tout le monde l'admire.

Translate into French or German :—

When Malcolm and Donaldbane, the two sons of the good king, saw their father slain in this strange manner within Macbeth's castle, they became afraid that they might be put to death likewise, and fled away out of Scotland; for, notwithstanding all the excuses which he could make, they still believed that Macbeth had killed their father. Donaldbane fled into some distant island, but Malcolm, the eldest son of Duncan,

Appendix, No. 6.

General Class Examination.

went to the court of England, where he begged for assistance from the English king, to place him on the throne of Scotland as his father's successor. In the meantime, Macbeth took possession of the kingdom of Scotland, and thus all his wicked wishes seemed to be fulfilled. But he was not happy. He began to reflect how wicked he had been in killing his friend and benefactor, and how some other person, as ambitious as he was himself, might do the same thing to him. He remembered, too, that the old woman had said, that the children of Banquo should succeed to the throne after his death, and therefore he concluded that Banquo might be tempted to conspire against him, as he had himself done against King Duncan. The wicked always think that other people are as bad as themselves.

In order to prevent this supposed danger, he hired ruffians to watch in a wood, where Banquo and his son Fleance sometimes used to walk in the evening, with instructions to attack them, and kill both father and son. The villains did as they were ordered by Macbeth; but while they were killing Banquo, the boy Fleance made his escape from their wicked hands, and fled into Wales.

Translate into English :—

Sommerleben.

Schon der Sommer allein erhöhe! Welche Jahreszeit! Wahrlich, ich weiß oft nicht, bleibe ich in der Stadt, oder gehe ich auf's Feld, so sehr iſt's einerlei und hübſch. Geht man zum Thor hinaus, ſo erfreuen uns die Bettler, die jetzt nicht frieren, und die Poſtreiter, die mit vieler Luſt die ganze Nacht zu Pferde ſitzen können, und die Schläfer ſchlafen im Freien. Man braucht kein dumpfes Haus; jede Staude macht man zur Stube und hat dabei gar meine guten, emſigen Bienen vor ſich und die prächtigſten Zweifalter. Wegen des Jagdverbotes wird nichts geſchoſſen, und alles Leben in Büſchen und Furchen und auf Aeſten kann ſich ſo recht ſicher ergötzen. Ueberall kommen Reiſende auf allen Wegen daher, haben die Wagen meiſt zurückgeſchlagen; den Pferden ſtecken Zweige im Sattel, und den Fuhrleuten Roſen im Mund. Die Schatten der Wolken laufen, die Vögel fliegen da zwiſchen auf und ab, Handwerksburſchen wandern leicht mit ihren Bündeln und brauchen keine Arbeit. Sogar im Regenwetter ſteht man ſehr gern draußen und riecht die Erquickung, und es ſchadet den Viehhirten die Näſſe weiter nicht. Und iſt's Nacht, ſo ſitzt man nur in einem kühlern Schatten, von wo aus man den Tag deutlich ſieht am nördlichen Horizonte und an den ſüßen Himmelsſternen. Wohin ich nur blicke, ſo finde ich mein liebes Blau: am Flachs in der Blüthe, an den Kornblumen und am göttlichen, unendlichen Himmel, in den ich gleich hineinſpringen möchte wie in eine Fluth.

Kommt man nun wieder nach Hauſe, ſo findet ſich in der That friſche Wonne. Die Gaſſe iſt eine wahre Kinderſtube. Sogar Abends nach dem Eſſen werden die Kleinen wieder in's Freie gelaſſen und nicht, wie im Winter, unter die Bettdecke gejagt. Man iſſet am Tage und weiß kaum, wo der Leuchter ſteht. Im Schlafzimmer ſind die Fenſter Tag und Nacht offen, auch die meiſten Thüren ohne Schaden. Die älteſten Weiber ſtehen ohne Froſt am offenen Fenſter und nähen. Ueberall liegen Blumen, neben dem Tintenfaß, auf den Akten, und den Seſſions- und Ladentiſchen. Die Kinder lärmen ſehr, und man hört das Rollen der Kegelbahnen. Die halbe Nacht geht man auf den Gaſſen auf und ab und ſpricht laut und ſieht die Sterne am hohen Himmel ſchießen.]

Jean Paul Richter.

Andacht.

Wenn das Abendroth die Haine
Mit den Abſchiedsflammen küßt,
Wenn im prächt'gen Morgenſcheine
Lerchenklang die Sonne grüßt:

O, dann werf' ich Jubellieder
In's Lobpreiſen der Natur;
Echo ſpricht die Töne wieder,
Alles preiſ't den Ew'gen nur!

Mit den Quellen geht mein Grüßen;
Und das taube Herz in mir
Hat dem Gott erwachen müſſen,
Der uns ſchirmet für und für.

Meereswogen laut erklingen,
In den Wäldern wohnt manch Schall:
Und wir ſollten nicht beſingen,
Da die Freude überall?

Tiede.

FIRST, SECOND, AND THIRD YEAR STUDENTS.

*** *First* Year Students are to do the *questions* 1–4 inclusively, of *either* paper (*German* or *French*). *Second* Year Students the *whole* of *one* paper. *Third* Year Students the whole of *either* paper, and to engage besides *partly* on the *other* paper (*German* or *French*).

GERMAN.

1. Give some *idiomatic locutions*, in which the grammatical *ancient* form of adjectives has been retained. What was the *characteristic* termination of the ancient *adjective form* in the *oblique cases?* Exemplify.

2. What kind of *derivative nouns* are, after Dr. Becker's theory, those formed by the addition of a final *t* to the *radical* of verbs of the *ancient form?* What is their *gender?* Which are the exceptions?

3. Give (according to the same grammarian) a classification of verbs of the *ancient form.*

4. Write out some examples *in German* involving the rules on—

(*α.*) The *predicative combination.*

(*β.*) The *objective combination* (according to Dr. Becker's system).

5. State the general rules on "Wort-Bildung," and give the corresponding substantive terminations in *English*, besides defining the *gender* according to any given termination.

6. Write out six German *idiomatic locutions* in which any six *verbs of mood* may occur, such as ſollen, mögen, müſſen, &c.

FRENCH.

1. Give some instances on the French "*Correspondance des Temps*," using the following *formula* of the *Gramm. des Grammaires*: "*On m'assure que vous partez aujourd'hui pour Paris.*" Add other *subordinate clauses* in any *tense* and *mood* which may be employed after the *pres. indic.* "*On m'assure*;" *e.g., fut.*:—"*Que vous partirez demain*," &c., &c.

2. Remark on the *comparative* implying *equality* (= *comparatif d'égalité*). Is the *negative particle* "*ne*" employed when a *degree of equality* exists? Correct, if necessary, the following sentence given in the

Appendix, No. 8.

General Class Examination.

Gram. des Grammaires:—"*Je fis, ou, je ne fis pas autaut de réponses victorieuses qu'on me fit d'objections.*"—BEAUZEE *Encyl.*

Add *other instances* from the *Gram. des Gram.* that you may remember.

3. Remark (relative to the same subject of the *comparative degree*) on the following sentences :—

(*a.*) On se voit d'un *autre* oeil qu'on *ne* voit son prochain.

LA FONTAINE.

(*b.*) Il est fait *autrement* que vous *ne* croyez.

L'Académie.

4. Compare the following sentence with that in question 3 (*b.*) :—"*Vous ne pensez pas autrement que vous dites.*" Account for the negation "*ne*" being left out here after "*autrement*" in the subordinate clause.

5. Show how the word "*huile*" (*oil*) became gradually corrupted from (Lat.) "*oleum;*" the *neuter* termination "*um*" being retrenched in French words.

6. Distinguish between "*imposer*" and "*en imposer*" by translating (after *Laveaux*) : "*L'air noble et simple de l'innocence impose. L'air composé d'un hypocrite* EN IMPOSE.

*** Taking Laveaux for our guide, should *César* (being penetrated with admiration for Brutus) say: "*Sa fermeté m'impose*" or *Sa fermeté* M'EN *impose?*"

7. State the general rules relating to the *suppression* or *employment* of PAS and POINT in a *negative clause.*

Translate accurately :—

(*a.*) *It is better not to say a word than to speak nonsense.*
(*b.*) *You do not say a word but that is applauded.*
(*c.*) *He does not say anything but what is to the purpose.*

Use in the two *co-ordinate clauses* (introduced by "*but,*" &c.) the *relative construction* with "*que,*" &c.

(*d.*) *Rampale et Ménardiere are no longer* (=*plus*) *much* (=*guére*) *read.—Boileau Art. Poët.*

Render this sentence by the *active voice* with pronoun "*on.*"

*** Other questions *on grammar*, especially *irregular verbs*, &c., &c., and their government, have formed a previous subject of *class-examination.*

MATHEMATICS.—*Examiner, Professor Purser.*

FIRST YEAR STUDENTS.

ALGEBRA, &C.

1. Calculate by actual multiplication the product of the four factors $a+b+c$, $b+c-a$, $c+a-b$, $a+b-c$.

2. Prove algebraically that if $\frac{x}{y}=\frac{a}{b}$ $\frac{x-y}{x+y}=\frac{a-b}{a+b}$.

3. Solve the equations—

$$x+\frac{6}{x}=7 \qquad \begin{cases} 7x+5y=-1 \\ 5x+3y=+1 \end{cases}$$

$$\sqrt{x-a}+\sqrt{x-b}=\sqrt{a-b}.$$

4. The sum of the squares of two numbers is 58, and their difference is 4, required the numbers.

5. Find the expressions for the sum of the series—

$$1, \frac{2}{3}, \frac{4}{9}, \frac{8}{27}, \text{ \&c.} \qquad 1^{\circ} \text{ to } 10, \quad 2^{\circ} \text{ to } 100 \text{ terms},$$

and show that, as the number of terms is increased indefinitely, the sum of the series tends to the limit 3.

6. The sum of the sides of a right-angled triangle is 221 feet, and the altitude 60 feet, calculate the sides.

7. Given $\begin{cases} \frac{x^3}{y^3} = xy - 31 \\ \frac{y^3}{x^3} = 64 - xy \end{cases}$ find x and y.

8. Eliminate x and y from the equations—

$$\left.\begin{array}{l} x + y = a \\ x^3 + y^3 = b^3 \\ x^3 + y^3 = c^3 \end{array}\right\} \text{ exhibiting the result in a rational form.}$$

9. Assuming the truth of the exponential series for the expansion of e^x, investigate the series for the expansion of $\log_e(1+x)$.

Show that

$$\log_e(y) = \frac{1}{n}\left\{ (y^n - 1) - \frac{1}{2}(y^n - 1)^2 + \frac{1}{3}(y^n - 1)^3 - \text{, \&c.} \right\}$$

10. Write down the series for the expansion of $(1+x)^{\frac{1}{3}}$. Apply this series to calculate the cube root of 70 to three places of decimals.

11. State and prove the different tests with which you are acquainted for determining the convergency or divergency of a given series. Illustrate by examples.

12. Investigate the conditions that

$$ax^2 + by^2 + cz^2 + 2lyz + 2mzx + 2nxy$$

should be a perfect square.

13. Rationalize the equation

$$\sqrt{w} + \sqrt{x} + \sqrt{y} + \sqrt{z} = 0.$$

14. Express $x^4 + \frac{1}{x^4}$ in terms of $\left(x + \frac{1}{2}\right)$.

GEOMETRY AND TRIGONOMETRY.

1. The angle at the centre of a circle is double the angle at the circumference standing on the same arc.

2. If two triangles have one angle of the one equal to one angle of the other, and the sides about the equal angles proportional, the triangles are equiangular, the equal angles being opposite homologous sides.

3. Find a mean proportional to two given lines.

4. Prove that any two sides of a triangle are to one another as the sines of the opposite angles.

5. Write down the formulae for the sine and cosine of the sum of two angles, and hence prove that

$$\text{Sin } \theta = 2 \sin \tfrac{1}{2}\theta \cos \tfrac{1}{2}\theta. \quad \text{Cos } \theta = 2\cos^2 \tfrac{1}{2}\theta - 1.$$

6. Explain clearly the different steps in the solution of a triangle when given two sides and the included angle, proving the formulae employed.

Appendix, No. 8.

General Class Examination.

7. Assuming that $\frac{\text{circumference of a circle}}{\text{diameter}} = 3{\cdot}14159$, show that the circular measure of any angle $= \frac{\text{number of seconds}}{206265}$ approximately.

8. Describe a circle passing through a given point and touching two given circles.

9. If R, r be the radii of the circles circumscribed to and inscribed in a given triangle, and (δ) the distance between their centres $\delta^2 = R^2 - 2Rr$.

10. An observer standing on a mountain 600 feet high just barely sees above the horizon line the top of another 1,100 feet high on the opposite side of the channel. Find the distance of the mountains, proving the formula employed.

11. Eliminate α and β from the equations

$$\frac{x}{a}\cos\alpha + \frac{y}{b}\sin\alpha = 1$$

$$\frac{x}{a}\cos\beta + \frac{y}{b}\sin\beta = 1$$

$$\frac{\cos\alpha\cos\beta}{a^2} + \frac{\sin\alpha\sin\beta}{b^2} = 0$$

12. Prove that

$1 - \cos^2 A - \cos^2 B - \cos^2 C + 2\cos A\cos B\cos C = 2\sin S\sin(S-A)\sin(S-B)\sin(S-C)$ where $S = \frac{1}{2}(A+B+C)$.

13. Show that if p, q, r be the three perpendiculars let fall from any point inside a triangle on its three sides, then $p\sin A + q\sin B + r\sin C = 2R\sin A\sin B\sin C$, where A B C are the angles of the triangle, R the radius of the circumscribing circle.

14. Prove Machin's formula $\frac{\pi}{4} = 4\tan^{-1}\frac{1}{5} - \tan^{-1}\frac{1}{239}$, and apply it to calculate the value of π to 5 places of decimals.

15. Prove the exponential expressions for the sine and cosine.

Sum the series

$$1 + \frac{n}{1}\sin\theta + \frac{n.n-1}{1.2}\sin 2\theta + \frac{n.n-1.n-2}{1.2.3}\sin 3\theta + \text{\&c.},$$ where n is an integer.

16. Show that if A B C be the angles of a triangle $\sin A + \sin B + \sin C$ lies between 0 and $\frac{3\sqrt{3}}{2}$

17. The vertical angle of a triangle is fixed in magnitude and position, and the base passes through a given point, prove the following relation between the segments x, y of the base

$$\frac{p^2}{x^2} + \frac{q^2}{y^2} - 2\cos C\frac{pq}{xy} = \sin^2 C$$

where p and q are the perpendiculars let fall from the given point on the given lines.

SECOND YEAR STUDENTS.

ANALYTICAL GEOMETRY, &c.

General Class Examination.

1. Prove the formula for the area of a triangle in terms of the sides. Calculate the area to two places of decimals, when the sides are 12, 10, and 8 feet respectively.

2. Prove the formulae:

$$\frac{\tan\frac{1}{2}(A-B)}{\tan\frac{1}{2}(A+B)} = \frac{a-b}{a+b} \qquad \sin\tfrac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}$$

3. Show that the equation of a line cutting off intercepts a and b on the co-ordinate axes is $\frac{x}{a}+\frac{y}{b}=1$

Make a diagram, showing the direction and position of the following lines:

$$3x-2y=5 \qquad x+y+1=0.$$

4. Determine the co-ordinates of the point dividing the line joining the points $x'y$ $x''y''$ internally or externally in the ratio $m:n$

Apply these expressions to determine the equation of the pair of tangents to a conic through a given point $x'y'$.

5. Show that the length of the perpendicular from the point $x'y'$ on the line $x\cos a+y\sin a-p=0$ is $\pm(x'\cos a+y'\sin a-p)$. Find the equation of the perpendicular from the point $x'y'$ on the same line.

6. Find the locus of the middle point of the chord of a circle which subtends a right angle at a given point.

7. Investigate the condition that the general equation of the second degree represent a pair of right lines.

8. Prove that the co-ordinates of the centre of a conic given by the general equation are determined by the equations $ax+hy+g=0$ $by+hx+f=0$.

Find the locus of the centre of a conic passing through four given points situated on the axes of co-ordinates.

9. Find the equation of the evolute of an ellipse.

10. The lengths of two rectangular tangents to a parabola are a and b, prove that the paremeter $=\dfrac{4a^2b^2}{(a^2+b^2)^{\frac{3}{2}}}$

11. From any point P, two tangents PQ and PR are drawn to a conic, prove that the centre of the circle circumscribing the triangle PQR lies on the major axis, if the point P lies on the circle described on the foci as diameter.

12. From any point on a conic two lines are drawn through two fixed points on the axis major, find the envelope of the chord joining the points in which they meet the curve again.

13. Two tangents are drawn to a curve, such that the area of the space between the curve and the tangents is constant, prove that the tangent to the curve locus of their intersection is parallel to the corresponding chord of contact.

DIFFERENTIAL AND INTEGRAL CALCULUS, &c.

1. Prove the series for the expansion of a^x in powers of x.

2. Solve the equations:

$$\sqrt{1+x+x^2}+\sqrt{1-x+x^2}=\sqrt{2x}$$

$$\left.\begin{aligned} x^3-y^3 &= 240 \\ xy &= 209 \end{aligned}\right\}$$

Appendix, No. 8.
General Class Examination.

3. Assuming that $\left(1+\frac{1}{x}\right)^x$ approaches the limit (e) as x increases indefinitely, investigate the differential co-efficients of a^x and of $\log x$.

4. Differentiate the following expressions:

$$\sqrt{1-x+x} \quad e^{x\tan x} \quad x^2\log x \quad \frac{\sin 3x}{x}$$

5. Prove that $\cos\theta+\sin\theta-\frac{\theta}{\sqrt{2}}$ is a maximum when $\theta=15°$.

6. Prove that the curve $y=f(x)$, $\frac{dy}{dx}$ is the tangent of the angle which the tangent to the curve at the point x, y makes with the axis of (x), and hence that in the circle the tangent is perpendicular to the radius.

7. Expand sec (x) as far as the fourth power of (x) by Maclaurin's theorem.

8. The envelope of the curve $Ua^2+Va+W=0$, where $U\ V\ W$ are given functions of x and y and a an arbitrary parameter, is the curve $V^2=4UW$. Prove this, 1° without 2° with, the aid of the differential calculus.

A variable line passing through a fixed point intersects two given lines, find the envelope of the circle circumscribing the triangle so formed.

9. Find the co-ordinates of the centre and the radius of the circle osculating the curve $y=f(x)$ at any point x, y.

Show that in the case of the curve $\frac{2y}{h}=e^{\frac{x}{h}}+e^{-\frac{x}{h}}$ the radius of curvature is equal to the intercept cut off on the normal by the axis of (x).

10. Find the equation of the locus of the foot of the perpendicular from the centre of an ellipse on its tangent, 1° in x & y, 2° in r & p co-ordinates. Show that if $a^2>2b^2$ this curve has four points of inflexion at the distance from the centre $\sqrt[3]{\frac{ab}{\sqrt{a^2+b^2}}}$

11. Find the limiting of

$$\frac{a^x-a^m}{x-m} \text{ when } x=m$$

and of $\frac{x^x-x}{1-x+\log x}$ when $x=1$.

12. Prove Lagrange's theorem for the expansion of $f(y)$ in powers of x, when x & y are connected by an equation of the form $y=z+x\phi(y)$.

Apply it to expand y in powers of x when the equation of connexion is $y=z+x\sin y$.

13. Define the symbol fdx. Prove that an integral is the limit of a certain sum.

The velocity in feet per second of a stone falling in vacuo is equal to thirty-two times the number of seconds it has been falling. Find how many feet it will fall in n seconds.

14. Required the following integrals:

$$\int\left(\frac{1}{x^{\frac{1}{2}}}+\sin 5x\right)dx \qquad \int\frac{dx}{x^3-1}$$

$$\int x^2\log x\,dx \qquad \int\frac{x\,dx}{(x-1)^{\frac{1}{2}}}$$

NATURAL PHILOSOPHY.—*Examiner, Dr. Stevelly.*

Natural Philosophy.

1. Define the term force. Show how forces are represented by lines. What three things must be known in order to determine a force? (Distinguish between statical and dynamical force.)

2. Define the term equilibrium. Distinguish between stable, unstable, and neutral equilibrium. When any number of forces act upon a body at one point, under what conditions will the body be in equilibrio?

3. Define the centre of gravity of a heavy body. Show how to determine that of a uniform triangular plate. If a heavy body be placed upon a supporting base, show how to determine—

(*a.*) Whether it will stand or fall.
(*b.*) The measure of its stability.
(*c.*) The direction of its fall.
(*d.*) The quantities on which the magnitude of its stability depends.

4. Enumerate the mechanical powers. Explain the principle of the lever of the first order; of the pulley; of the screw. Describe Hunter's screw, and its peculiar advantage. Describe any combination of pulleys, including not less than four, and show the relation between the power and the weight.

5. Write down the equation which connects h, g, and v: also that which connects h, g, and t: where h is the height through which a body falls from rest; g, the accelerating force of gravity; v, the final velocity; t, the time of falling. Show how these may be determined by Atwood's machine.

6. What is the relation between the length of a pendulum, and the time of its oscillation in a small arc? Why does a pendulum not occupy the same time in oscillating at all parts of the earth's surface?

7. State accurately the difference between the weight of a body in vacuo and in any given fluid. Explain floatation. State the conditions of stable equilibrium of a body floating in any liquid. Explain how an iron ship floats.

8. How is sound propagated? How is it produced when a bell is struck? When a tuning fork is struck and held before the mouth of a cylinder closed at the further end, under what circumstances will the note be intensified?

9. State the laws of reflection, and of refraction of light. Distinguish between a real a virtual focus of a mirror. Show by a diagram the effect produced upon a direct pencil of parallel rays by each of the six forms of lenses. Name each lens as you proceed.

10. Describe the spectrum. Explain its formation. How can a ray of light traverse a prism without suffering any apparent dispersion? Explain accurately the formation of the rainbow.

11. Define the terms equator, meridian, ecliptic. Distinguish between terrestrial and celestial latitude and longitude. Distinguish between the altitude, latitude, and declination of a heavenly body. Explain the phenomena of day, night, and twilight. Why is winter cold and summer warm?

12. State the laws of magnetic attraction and repulsion. A current of electricity is caused to pass horizontally above, and parallel to, a freely suspended magnetic needle; state accurately the effect produced. Distinguish between statical and dynamical electricity; and explain the classification of bodies as conductors and non-conductors, naming some bodies belonging to each class.

Appendix, No. 8.

General Class Examination.

13. Explain accurately the electrical machine and its mode of action. Describe the construction and principle of the best electrical condenser with which you are acquainted, and the manner of discharging it.

THIRD YEAR ENGINEERING STUDENTS.

MOTIVE POWERS AND PRINCIPLES OF MECHANISM.

1. Enumerate the classes to which the motive powers at the command of man have been reduced. Select two of them, and explain the laws by which the action of these two are governed.

2. Enunciate the laws of friction. Explain what is meant by the co-efficient of friction, and show how its value is obtained for any two given surfaces.

3. Will every species of heavy cylinder, as it rolls along a horizontal plane, oppose a uniform resistance to the action of a force parallel to the plane, which urges its centre of gravity along, parallel to the plane? Point out the part of the resistance properly due to friction, and explain the origin of any other action which may aid or oppose the urging force.

4. A mass of matter, which, at the surface of the earth, would weigh 76 lbs., is moving at the rate of 100 feet per second, how many units of work would be expended in stopping the motion of that mass?

5. A right square pyramid, whose base is 24 feet in its side, and whose perpendicular height is 36 feet, is composed of a uniform material, which weighs 166 lbs. to the cubic foot; find how many units of work will be expended in overturning it round one of the edges of its base, from a horizontal plane on which it rests.

6. A railway train travels at the uniform speed of 40 miles an hour, it is drawn by a locomotive engine of 130 horses effective power. It had been formerly found that the same train, moving at the speed of ten miles an hour, had been resisted by the atmosphere to the amount of 33 lbs. What is the entire weight of the train?

7. Substitute, in the last question, alegbraic symbols in place of the numbers, which may have different values in several practical questions which may be proposed for solution; find the resulting equation or theorem; and point out the different classes of questions which may be solved by its aid.

8. Describe the three capital improvements introduced by Watt into the steam engine, as constructed before he commenced his investigations. Explain clearly the defects remedied, and loss got rid of by each of these.

9. Compare the quantity of steam used each double stroke of the pistons of two engines, whose cylinders have equal diameters, whose pistons move through equal spaces each stroke, and which use the steam expansively, each cutting off at one-third of the stroke, one being a Cornish pumping engine, the other the most improved crank and fly-wheel condensing engine.

10. Enunciate the law, commonly called "Watt's law," and give a sketch of the nature and results of the long-continued, extensive, and carefully-conducted experiments on the Cornish engines, in establishing or disproving its strict truth.

11. Explain what is meant by "The Duty" of a steam engine, and state the facts which require to be ascertained, in order to calculate the duty of any particular engine.

12. If the velocity ratio of two pieces in a train of mechanism be constant, prove that you can obtain that ratio by measuring the spaces (or angles) simultaneously described by these pieces, no matter how

irregular the actual motions may have been with which these spaces (or angles) may have been described during the measurements.

13. When two pieces in a train of mechanism act on each other by contact connexion, find the expression for the initial ratio of the sliding motion to the actual motion of the point of contact of the driver, or of the follower, and from that expression deduce the leading practical conclusions. General Class Examination.

ARTS AND THIRD YEAR ENGINEERING STUDENTS.

HONOR PAPER.

1. Prove that if two forces, P and Q, be impressed simultaneously, either actually or virtually, on the same point of a body in directions which contain the angle ϕ, the magnitude of the resultant is obtained by the equation $R^2 = P^2 + Q^2 + 2PQ\cos\phi$.

2. Show how the direction of the resultant is determined, the data being the same as in the last question.

3. Prove that the effect of a couple on a rigid body is not changed by changing or varying the constituent forces and arm in any way in the same, or in any parallel plane, if the moment of the couple be preserved unchanged.

4. A merchant who is selling retail is aware that the arms of his balance are unequally long in the proportion of 7 to 8; but in order, as he thinks, to correct the error this causes, he changes the scale into which he puts the commodity, each time he weighs quantities of equal apparent weight. State whether he gains or loses, and how much per ton, and prove what you assert.

5. A ship is moving at the rate of ten British miles an hour, calculate her speed in feet per second, and state and explain the conclusion to be deduced from the fact that a person in the cabin of that ship wishing to throw anything across to a friend, must throw it in the same direction, and with the same exact force, as if the entire vessel and themselves were at rest.

6. An inert mass, acted upon by a uniform accelerating force, moves from rest over $12\frac{1}{2}$ feet in 5 seconds; find the number which expresses the dynamic effect of that force, and explain fully the units to which that number refers.

7. Given the moment of inertia of a pendulous mass with respect to an axis passing through its centre of gravity parallel to the axis on which it vibrates, and also its mass and the distance of its centre of gravity from its axis of suspension. Write down the formula which expresses the length of the pendulum it constitutes, and explain how that formula is deduced.

8. A surface of one square inch, when placed beneath the surface of pure water in a reservoir, sustains a pressure of two pounds avoirdupoise; find the pressure the same square inch will sustain if its centre of gravity be placed seventy inches deeper than it was at first.

9. If a cylindric vessel, full of a heavy inelastic fluid, be caused to revolve round its axis placed in a vertical position, its free surface will be found not to remain a horizontal plane. Explain this, and find the form of the surface.

10. Show that the images of each radiant point of a visible object placed between two plane reflectors (inclined at an acute angle), formed by the successive reflexions, are, in each case, all ranged in the circumference of a circle. Point out the centre, the radius, and the plane of that circle.

Appendix, No. 8.

General Class Examination.

11. An astronomer takes, with an equatorial instrument, the declination and right ascension of the centre of a comet or planet, and at the same instant his assistant at the transit instrument takes the declination and right ascension of a star then passing the meridian; show by the solution of what spherical triangle the angular distance of these two objects can be calculated from the data thus obtained.

12. Describe the general circumstances of the apparent motions of the planets. Explain these appearances in the case of a superior planet, by showing how the true motions of the earth, carrying with it the spectator, and of the planet, give rise to those appearances.

Logic.—*Examiner, Dr. M'Cosh.*

HONOR LOGIC.

1. What is Brown's and what Hamilton's doctrine as to the formation of the general notion? Specify defects in their respective theories.

2. Name the more eminent conceptualists. In what sense and how far is conceptualism the true doctrine? Mention some ambiguities and oversights in the doctrine as entertained by some, *e.g.*, Locke.

*3. Interpret the following proposition in extension, and say how many immediate inferences or transposed judgments may be derived from it by interpreting its extension:—"Mercury is a planet."

4. "Electricity does, and the nervous fluid does not, travel along a tied thread, and therefore the nervous fluid is not electricity." Put the reasoning (1) in the form of a categorical in the second figure; (2) reduce it to the first figure; (3) put it in the form of reasoning in comprehension; (4) put it in the form of a conditional.

5. "Copperas and sulphate of iron are identical; sulphate of iron and sulphate of copper are not identical; therefore copperas and sulphate of copper are not identical." Is this reasoning valid? Can it be reduced to mood and figure? What principle regulates it?

*6. Give an example of reasoning with a perfect induction. Put it in proper form, and state the regulating principle. Wherein does such an induction differ from that of Bacon?

*7. "Lias lies above coal; coal lies above old red sandstone; therefore lias lies above old red sandstone." Put this reasoning in syllogistic form.

8. State and examine Mr. Mill's doctrine as to the nature and validity of mathematical definitions and axioms.

*9. The word "induction" has been used in wider and certain narrower significations. In what sense is it used by Mill? Is there reasoning in the process? If so, how do we get our majors, and how can it be stated syllogistically?

10. What is the precise nature of the joint dogmatic and deductive method? What principles regulate it? What is the nature of the joint inductive and deductive method? What are the tests of the validity of the process? In what sciences are the methods respectively employed?

11. What is meant by the uniformity of nature? Is our conviction as to the uniformity of nature an intuitive principle? Are there intuitive principles involved in it?

12. Show that there are mutual action and adaptation involved in all physical causation.

N.B.—Persons seeking Honors omit those marked (*), and answer the following instead:—

HONOR QUESTIONS.

α. Discuss the question of the precise relation between the subject and predicate in the various classes of propositions, giving historical notices

of opinions. Have all propositions both extension and comprehension? Give examples. *Appendix, No. 8.*

β. What constitutes a particular proposition? What ambiguity is there in the word "some?" In what sense is it used in the common logic? "Some students are not matriculated." Can we argue that some are matriculated? General Class Examination.

γ. Explain the exact nature and the regulating principle of disjunctive reasoning. Give the principle forms with concrete examples.

δ. Show how a miracle, though not falling out according to the uniformity of nature, is not inconsistent with any intuitive principle.

---

*1. When did Plato live? Give an account of his famous illustration of "the Cave." Is it meant to set forth a theory of sense-perception? or what?

2. Give a brief account of Plato's theory of beauty, subjective and objective. What writers have adopted that theory in whole or in part? What opposite theory has been proposed? You may offer comments.

3. Name the principal philosophic works of Aristotle. What is supposed to be the origin of the word "Metaphysics?" What is the province of the First Philosophy, according to Aristotle? Explain correctly, and illustrate Aristotle's fourfold division of causes.

4. Who held that all our senses are only modifications of touch? What truth is there in the doctrine? Show that in touch there is a pleurality of senses.

5. Argue the question whether sight is cognizant of colour merely, or of extension also: give historical notices of opinions.

6. Mention the principal forms of the representative theory of sense-perception, and specify the objections to the hypothesis.

*7. What is Locke's account of knowledge and intuition? What are its excellences and defects?

*8. In what relation did Hutcheson stand to Locke? What are the excellences and defects of Hutcheson's moral system.

9. Name the principal works of Hume. Give some account of Hume's theory of the mind, specially as to impressions, ideas, association of ideas, relations, and faith. You may offer comments as to its defects.

10. What are Kant's ideas of pure reason? What is his criticism of the idea of substance, specially of the "cogito ergo sum" of Descartes?

*11. Examine the following statements of Hamilton:—"Philosophy is wholly dependent on consciousness." "The primitive cognitions seem to leap ready armed from the womb of reason, like Pallas from the head of Jupiter."

12. State and examine Hamilton's doctrine of Causality objective and subjective.

N.B.—Students seeking for Honors omit the questions marked (*), and answer the following instead:—

α. Give a brief historical and critical sketch of the way in which philosophers have dealt with the apparent deception of the senses.

β. State and examine Hamilton's account of comparison, or the faculty of relations. How does it differ from that given in the lectures?

γ. How did Reid and Kant respectively meet the scepticism of Hume?

δ. State and examine the doctrine that the thinkable lies between two extremes or poles.

Appendix, No. 8.

CIVIL ENGINEERING.—*Examiner, Professor James Thomson.*

General Class Examination.

FIRST YEAR STUDENTS.

GEOMETRICAL DRAWING.

1. Explain clearly what is meant in descriptive geometry by the following expressions:—*The projections of a point—The projections of a line—The projecting plane of a straight line—The traces of a line—The traces of a plane.*

2. In descriptive geometry, to draw through a given point a line parallel to a given straight line.

3. Supposing the traces of a plane and the projections of a point to be given, explain how to draw the projections of a line which passes through the given point, and is perpendicular to the plane; and how to find the length of the perpendicular intercepted between the point and the plane. Explanation without a diagram will suffice.

4. In fig. 1 of the accompanying diagram sheet, find accurately the intersection of the straight line ac, $a'c'$, with the plane $b\beta b'$.

5. In fig. 2 of the same diagram sheet, find accurately the traces of the plane which passes through the three points a, a'; b, b'; and c, c'; and show various proofs of the truth of your result.

6. Give a clear description of what is meant by a drawing in linear or geometrical perspective.

7. The perspective of an original straight line lies in the straight line drawn from the "*intersecting point*" to the "*vanishing point*" of that line, or in its continuation past the intersecting point, but not past the vanishing point. Explain and prove this.

8. Draw the projections of a one-inch cube which stands on the horizontal plane of projection, with two faces parallel to the vertical plane of projection, and with a clear space between it and the vertical plane of $1\frac{1}{2}$ inches. Draw its shadow cast on the horizontal plane of projection, taking the light as falling in a direction ordinarily adopted in orthographic writing. The following line is one inch long ———.

9. A given vertical right circular cone is cut by a given plane parallel to the vertical plane of projection. Show how to find the vertical projection of the section.

10. Explain any one of the methods of drawing in perspective taught in the course of the present session.

11. Explain briefly the several methods of drawing in perspective taught in the course of the present session.

12. What is the condition as to position of the picture surface, when placed in its proper position relatively to the original objects, which is involved in the ordinary practice of representing vertical original lines by parallel upright lines in the picture; and under what condition ought vertical lines to be represented by lines converging towards a vanishing point?

13. In a panoramic picture of ordinary kind, show how to construct the representation of a straight line given by its projections, the position of the point of view and of the picture surface being also given.

14. In an ordinary picture there is only one vanishing point for any original straight line. In a panoramic picture there are ordinarily two. Explain this.

15. Explain how it is that the point commonly called the CENTRE OF THE PICTURE, and which is also called the POLE OF THE PICTURE, need not be the middle point relatively to the bounding edges of the picture surface, but may even be at the edge or outside of it.

16. If in a perspective picture of the interior of a rectangular room (or room with walls, floor, and ceiling rectangular), the representations of two edges of the floor, and two of the ceiling be drawn converging towards the centre or pole of the picture, show that this implies that the picture, if placed in its proper position relatively to the original objects, would be perpendicular to those lines.

17. In the same case prove farther that the representation of the remote wall of the room must be a rectangle.

18. How must a rectangular block of stone be placed relatively to a plane of projection in order that its projection may be isometric?

19. In isometric drawing distinguish between the natural scale and the isometric scale, and show how either of these can be found when the other is given. Give solutions if you can, both by geometrical construction and by numerical calculation.

SECOND YEAR STUDENTS.

CIVIL ENGINEERING.

1. When the sides of a triangle and a split line and the segments of the base made by that line have been measured in the field, how may the accuracy of the field work be tested without any computation of area? Also, when the area of the triangle has to be computed, how may the accuracy both of the field work and of the computation of the area be tested?

2. Explain how, by the use of *boning rods*, to set out the levels or gradients for the formation surface in railway excavations at the beginning and during the progress of the excavators' operations.

3. How may the ranging of the underground workings of a tunnel be effected in ordinary cases?

4. How could you proceed by a contour survey, or otherwise, to find the content of a reservoir for water?

5. In the frustrum of a pyramid, let the areas of the two parallel faces be A and C, and let the area of a section midway between them and parallel to them be B, and let their distance apart be l. Prove that the content of the frustrum is $= (A + 4B + C)\frac{l}{6}$. In your demonstration you may assume the ordinary rule for finding the content of a pyramid, or any of the ordinary expressions for the content of a prismoid.

6. In reference to the ranging of railway curves, prove the approximate formula

$$c = a\left(1 - \frac{a^2}{24r^2}\right)$$

in which c is the chord of a circular arc a, and r is the radius, and the arc is small in comparison with the radius.

7. What is the line of collimation of a theodolite?

8. What is the essential condition, *if any*, to be brought about in the adjustment of the line of collimation in each of the following instruments:—The common or Y theodolite;—the transit theodolite;—and Gravatt's level?

Appendix, No. 8.

General Class Examination.

9. In reference to the measurement of heights by use of the barometer, state and prove the law of the increase of atmospheric pressure with descent from any specified level, if the air be at a uniform temperature throughout the space from the upper to the lower level.

10. If the mercurial columns in the upper and lower barometers be at different temperatures, how may they still be used for giving the requisite information regarding the atmospheric pressures at the two stations.

11. The height of a homogeneous atmosphere varies with the temperature, but is independent of the pressure. Explain this.

---

12. When the levels for a line of railway are taken merely along the centre line, sidelong slopes being neglected, whether will the calculated quantity of earth come out too much or too little, in so far as influenced by the neglect of the sidelong slopes? Give proof of your answer.

13. For computation of earthwork along an entire cutting or embankment, whether will the ordinary prismoidal method or the method of "mean areas" give generally more correct results, and why?

14. In passing from a straight line of railway into a circular curve, why is it objectionable to have the straight part simply tangential to the circular part, and preferable to introduce the curvature gradually?

15. In the ranging of railway curves, how may the process in any of the ordinary cases be slightly modified, so as to effect the easing off of the transition from the straight line into the curve of the required radius?

OFFICE AND FIELD WORK.

1. Work out the reduced levels in the two forms of field level book submitted to you, and carry out the proper checks on the truth of the arithmetical work.

2. How may a traverse survey be plotted?

3. Give the reading of the horizontal limb of the theodolite before you.

4. Show how to reduce areas given in Irish acres, roods, and perches, to statute measure.

5. Find in feet and inches the length of 14 links of Gunter's chain:—and state how many chains there are to a mile.

6. Given in the field two points on a circular curve for a railway at a moderate distance apart:—(say one chain or thereabouts), and given also the radius of the curve, show how to range through one of them a straight tangent to the curve, and to find a third point of the curve at any given distance, moderate in amount, from the point of contact.

7. Explain how to set out the *half breadths* for a railway cutting in sidelong ground.

THIRD YEAR STUDENTS.

CIVIL AND MECHANICAL ENGINEERING.

1. Give for each of the specimens of woods submitted to you the chief distinctive characters available for classification which are observable on simple inspection, and add any other remarks you have to make as to the qualities or defects of the particular specimens, as distinct from the kinds of timber to which they belong.

2. Give information on methods for, and precautions to be observed in, depositing beton for foundations in trenches, pits, caissons, or coffer-dams;—1st, when the place for its reception is dry;—2nd, when it may be emptied by pumping;—and 3rd, when it is full of water which is not to be withdrawn. *Appendix, No. 8. General Class Examination.*

3. Mention and describe briefly the chief modes of making castings in iron, and some of the chief defects to which they are liable.

4. Describe the process of hardening and tempering steel.

5. Explain the method taught by Buck for truncating the edge of an oblique bridge where the soffit and oblique face meet, so as to avoid an acute arris on the stones.

6. What, according to the lectures, is meant by *a perfect fluid*, of which a hypothetical conception may be formed, and may be used in hydraulic reasoning; and in what respect do true fluids actually existing in nature fall short of possessing perfect fluidity?

7. State the general principle as to the flow of water through orifices similar to one another in form, and similarly situated relatively to the still water surface, which was demonstrated in the lectures on the hypothesis of the water being a perfect fluid.

8. Apply this principle in demonstrating, according to the same hypothesis, the truth of the Lowell Formula for the flow through rectangular notches, without regard to the exact amount of its numerical co-efficients.

9. What is meant by the modulus of elasticity of a material?

10. How does the deflexion of a beam, fixed at one end and loaded at the other, vary with its length—the cross-section and the load at end remaining constant, and the weight of the beam itself being neglected?

---

11. How does the strength of a rectangular beam to resist set or rupture by cross strain vary with the breadth and with the depth of its cross-section? Give demonstration or explanation of your answer.

12. Name the five Orders of Architecture and give descriptions of them sufficient to distinguish them one from another.

13. Explain the meanings of the following terms in Architecture:—Fillet, Cavetto, Ovolo, Torus, Tænia, Apophyge, Abacus, Modillion, Corbel, Bar Tracery.

OFFICE AND FIELD WORK.

1. Give explanations of the measurement of heights by the barometer and thermometer jointly used.

2. State whether or not a theodolite fully adjusted for an observation by a person of long sight, will require an adjustment for parallax in being used for the same observation by a short-sighted person. Explain your reasons clearly.

3. Describe and explain the divisions of the primary scale and vernier of a theodolite you have practised with in your College Course.

4. Describe the practical field operations, including signalling, for ranging a curve by the angles at the circumference.

5. Given in the field two points on a circular curve for a railway, at a moderate distance apart (say one chain or thereabouts), and given also the radius of the curve: show how to range through one of them a straight tangent to the curve, and to find a third point of the curve at any given distance, moderate in amount, from the point of contact.

6. Explain the various processes ordinarily carried out, in field and office, in preparation for and in making a working section of a line of railway in a rural district.

Appendix, No. 8.

General Class Examination.

NATURAL HISTORY.—*Examiner, Dr. Wyville Thomson.*

BOTANY.

1. What materials are taken up by the roots of plants from the soil, and in what proportions?

2. What chemical changes take place in the sap during the course of its circulation, and in what parts of a plant do these changes severally occur?

3. What relation, structural and physiological, does the leaf bear to the stem?

4. Describe minutely the structure of the male reproductive organs in any one group of the Cryptogamia.

5. Describe the flower in the Orchidaceæ.

6. Describe the flower and fruit of the Umbelliferæ, giving in detail the adhesions and cohesions of parts.

7. Describe, and give the essential structure of, the follow fruits:—a follicle, a drupe, a pome, a capsule, a caryopsis, a cypsela, a cremocarp, a samara, a glans, and a hesperidium.

8. Give the characters of the natural orders, Solanaceæ, Boraginaceæ, and Labiatæ, and state in what they severally differ from the Scrophulariaceæ.

9. Refer the two plants provided, to their natural orders, and give the cohesions and adhesions of the parts of their flowers.

CHEMISTRY.—*Examiner, Dr. Andrews.*

PASS PAPER.

1. Reduce +40°C., and −40°C., to the corresponding degrees on Fahrenheit's scale.

2. What is the source of the cold produced by evaporation?

3. What portions of the solar spectrum are chiefly remarkable for their chemical properties?

4. How many grains of oxygen are contained in 100 grains of water, and how has this been experimentally determined?

5. State in symbols the reaction when nitric acid is prepared by the action of sulphuric acid on the nitrate of potash.

6. How is chlorine gas prepared, and what are its properties?

7. Name the bodies of which the following are the symbols:—

NH_3	CaO, C_2O_3
NO_2	$Fe_2O_3, 3SO_3$
CO	$C_4H_6O_2$
C_2N	$C_4H_4O_4$

8. Give an account of the principal modifications of carbon.

9. What are the general properties of carbonate of lime?

10. What are the tests of lead?

CHEMISTRY.—HONOR PAPER.

1. What is the law of Boyle or Mariotte, and how has it been modified by recent investigations?

2. Show how the latent heat of water may be calculated by observing the diminution of temperature when a known weight of ice is allowed to melt in a given quantity of water.

General Class Examination.

3. Describe the method of liquifying the condensable gases, and mention approximately the pressures which the more important of them exert in the liquid state at the ordinary temperature of the atmosphere.

4. How is the full extent, at both ends, of the solar spectrum beyond the visible portion determined?

5. Describe Daniell's and also the wet-bulb hygrometer, and explain their respective indications.

6. State in detail the experimental method of determining the composition of water by the action of hydrogen gas at a red heat on the oxide of copper.

7. What is the law according to which gases diffuse themselves through porous septa, and how would you verify it experimentally?

8. Give an account of the reactions which take place in the preparation of the hypochlorite of potash and of the chlorate of potash.

9. How is the density of a vapour determined, and how is the process modified, so as to apply it to the determination of the density of a vapour at very high temperatures?

10. How is marsh gas prepared artificially, and what are its properties?

11. How is the sesquichloride of carbon prepared from olefiant gas?

12. State the symbol for flouride of silicon, and give the reaction which takes place when it comes into contact with water?

---

13. Describe the principal bright lines in the spectra of rubidium, cæsium, potassium, sodium, lithium, strontium, and thallium, and refer them in position to the dark lines A, a, B, C, D, E, b, F, G, H, in Fraunhofer's map of the solar spectrum.

14. Mention the more important compounds of lime, and their applications to useful purposes.

15. On what does the hardness of a water depend, and how is its amount determined? Describe also the preparation of the "standard solution."

16. What is the composition of cast iron.

17. Describe the process of fermentation and the method of determining the amount of alcohol in a fermented liquid.

18. What is the nature of a fatty body, and how are its proximate constituents obtained in a separate form?

19. Describe the general method of preparing a vegetable acid, such as the tartaric or citric, from the acid juice in which it is contained.

20. Give an account of electrical induction, and apply it to explain the action of the electrophorus.

21. On what grounds has it been inferred that electrical induction acts through the medium of material particles?

22. Give an account of Daniell's battery, and of the chemical changes which occur when it is in action.

23. Give a full account of voltaic induction, and of the construction of Ruhmkorff's machine.

24. Mention the characters of a diamagnetic body, and enumerate the more important bodies of this class.

ENGINEERING STUDENTS.

To substitute for questions 17, 18, and 19, the following:—

17*a*. What is the essential composition of an hydraulic mortar?

Appendix, No. 8.

General Class Examination.

18*a*. Give a general account of the method of extracting metals from their ores.

19*a*. What are the sources of thallium, and to what class of metal does it appear to belong?

MEDICAL STUDENTS

To substitute for questions 20, 21, 22, 23, and 24, the following:—

20. How is morphia obtained from opium; and what are its characteristic reactions?

21. What is the composition of chloroform, and how is it prepared?

22. What are the more important bodies which have been obtained by the action of nitric acid on lactine or sugar of milk.

23. How would you determine the atomic weight of such an alcaloid as nicotine?

24. What is the composition of bile?

PRACTICAL CHEMISTRY.

1. State the distinguishing tests of the bases of the second group?

2. How would you analyze a compound of phosphate of baryta and phosphate of lime?

3. What are the characteristic reactions of the bibasic and tribasic phosphoric acids?

4. State the composition of the crystalized ammoniaco-magnesian phosphate, and calculate the loss per cent. when this salt is heated to redness.

5. Describe the uranium process for determining the amount of phosphoric acid in a given solution, and mention the preliminary treatment required before this process can be applied to such a liquid as urine.

6. What are the tests of the proto and sesqui-salt of iron?

7. Describe the tests of hydrocyanic acid, and the method of determining its amount in a dilute solution.

8. Give an account of the method of determining the amount of sugar in diabetic urine by the fermentation process.

9. What is the action of sulphuric acid upon the oxalic and formic acids?

10. State the composition of tartar emetic. Describe its preparation, its properties, and the action of chemical reagents upon its solution.

11. How are meconic acid, morphia, and codeia prepared respectively from opium, and what are their distinguishing properties?

---

1. What are the characteristic tests of the salts of potash, soda, and ammonia?

2. Describe the process for determining the strength of a solution of chloride of sodium by means of a salt of silver, and calculate the strength of such a solution if 100 grammes of it corresponded to 5 grammes of pure silver.

3. How would you analyze qualitatively a calculus composed of phosphate of lime and ammoniaco-magnesian phosphate?

4. Describe the quantitative analysis of magnesian limestone (a compound of carbonate of lime and carbonate of magnesia).

5. State the composition of the hydrate of the sesqui-oxide of iron,

and describe the process for preparing it from the sulphate of the protoxide. *Appendix, No. 8.*

6. On adding alcohol to a solution of bichromate of potash containing sulphuric acid, and applying a gentle heat, chrome alum is formed: state in symbols the reaction. General Class Examination.

7. What are the characteristic tests for the protoxide of copper?

8. How would you distinguish the following substances from one another, viz.:—the chloride, bromide, iodide, and cyanide of silver?

9. In Liebig's process for the quantitative determination of urea, how is the solution of the nitrate of the oxide of mercury prepared and its strength determined?

10. Describe Graham's method of separating crystalloids from colloids, and its application to analysis.

Matriculation Examination.—October, 1865.

Matriculation Examination.

Mathematics.—*Examiner, Professor Purser.*

Arithmetic.

1. How much money must a broker invest in the funds, when Consols are at $89\frac{1}{2}$, so as to secure the same income as if he had invested £1,074 when the Consols stood at $97\frac{1}{2}$?

2. Find the value of 17 cwt. 3 qrs. 13 lbs., at £3 4*s.* 7*d.* per cwt.

3. Express $\frac{3}{7}$ and $\frac{5}{9}$ as fractions having the same denominator.

Reduce to its simplest form

$\left(\frac{2}{3}-\frac{3}{5}\right)$ of a pound sterling divided by $\left(\frac{5}{7}-\frac{3}{5}\right)$ of a guinea.

4. Divide 34·96818 by ·0381.

Write each of these numbers, as well as the final quotient, in the form of a vulgar fraction.

5. The squares described upon the sides of a right angled triangle contain 11 and 15 acres respectively, calculate to two decimal places the number of yards in the hypotenuse. 4840 square yards = 1 acre.

6. After what interval should a faster runner start in pursuit of a slower in order that he may overtake him in three minutes, the ratio of their speeds being 3 : 2?

Geometry.

1. If two triangles have two sides of the one equal to two sides of the other, each to each, and have also the contained angles equal, the triangles are equal in all respects.

2. To a given straight line apply a parallelogram, which shall be equal to a given triangle, and have one of its angles equal to a given rectilineal angle.

3. Divide a given right line into two parts, so that the rectangle under the whole line and one of its parts shall be equal to the square of the other part.

Appendix, No. 8.

ALGEBRA.

4. Solve the following equations—

Matriculation Examination.

1. Given that $y=\frac{a-bx}{c-dx}$ express x in terms of y.

2. Multiply $\frac{a^2}{b^2}+2+\frac{b^2}{a^2}$ by $\frac{a}{b}+\frac{b}{a}$.

3. Divide

$(ay-bx)^2+(bz-cy)^2+(cx-az)^2+(ax+by+cz)^2$ by $x^2+y^2+z^2$.

4. Solve the following equations:

$$(\alpha)\quad \frac{\frac{7x}{3}-2}{4}-\frac{5x-\frac{1}{2}}{3}=\frac{\frac{x}{4}-2}{5}-\frac{10}{3}.$$

$$(\beta)\quad \frac{9x-7}{5x-13}=\frac{2}{3}.$$

$$(\gamma)\quad (x-3)(x-7)=(x+5)(x-9).$$

$$(\delta)\quad \frac{\sqrt{a+x}+\sqrt{a-x}}{\sqrt{a+x}-\sqrt{a-x}}=b.$$

Peel Prizes.

Peel Prizes in Geometry.

Examiner, Professor Purser.

1. If two triangles have two sides of the one proportional to two sides of the other, and the angles opposite one pair of homologous sides equal, the angles opposite the other pair are either equal or supplemental.

2. The rectangle under the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles under the opposite sides.

3. One vertex of a triangle of given species is fixed, a second moves along the circumference of a given circle; find the locus of the third.

4. Given the rectangle under two lines and the difference of their squares; find the lines.

5. The sum of the squares of the sides of any quadrilateral is equal to the sum of the squares of its diagonals, together with four times the square of the line joining the middle points of the diagonals.

6. Find the locus of a point at which two given segments of the same line subtend equal angles.

7. Find a point on a circle such that the sum of its distances from two fixed points shall be the least possible.

8. Any pair of opposite angles of a quadrilateral inscribed in a circle are together equal to two right angles; find a corresponding relation amongst the angles of an inscribed hexagon.

9. Prove that the perpendiculars let fall from the vertices of an acute angled triangle upon the opposite sides will, when produced, divide the squares described on these sides into rectangles which shall be equal in pairs, and hence prove Euclid II., 13.

10. Given four points. Three lines are formed by connecting the middle point of the line joining any two with the middle point of the line joining the remaining two. Show that these three lines pass through a common point.

Scholarship Examinations.—October, 1865.

Literary Scholarships.—First Year Students.

Greek.—*Examiner, Professor MacDouall.*

I.—Translate these lines from the *Medeia* of Euripides :—

ΧΟΡΟΣ. πῶς ἂν ἐς ὄψιν τὰν ἀμετέραν
ἔλθοι μύθων τ' αὐδαθέντων[1]
δέξαιτ' ὀμφάν,[2]
εἴ πως βαρύθυμον[3] ὀργὰν[3]
καὶ λῆμα[3] φρενῶν μεθείη[1] |
μήτοι τό γ' ἐμὸν πρόθυμον
φίλοισιν ἀπέστω.[1]
ἀλλὰ βᾶσά[1] νιν[1] δεῦρο πόρευσον[1] οἴκων
ἔξω, φίλα καὶ τάδ' αὔδα
σπεύσασα πρὶν ἢ κακῶσαι τοὺς ἔσω·
πένθος γὰρ μεγάλως τόδ' ὁρμᾶται.
ΤΡΟΦΟΣ. δράσω τάδ'· ἀτὰρ φόβος εἰ πείσω
δέσποιναν ἐμήν·
μόχθου δὲ χάριν τήνδ' ἐπιδώσω.
καίτοι τοκάδος[2] δέργμα[3] λεαίνης[2]
ἀποταυροῦται[2] δμωσίν,[1] ὅταν τις
μῦθον προφέρων πέλας ὁρμηθῇ.[1]
σκαιοὺς δὲ λέγων κοὐδέν τι σοφοὺς
τοὺς πρόσθε βροτοὺς οὐκ ἂν ἁμάρτοις,
οἵτινες ὕμνους ἐπὶ μὲν θαλίαις[3]
ἐπί τ' εἰλαπίναις[3] καὶ παρὰ δείπνοις
εὕροντο βίου τερπνὰς ἀκοάς,
στυγίους[2] δὲ βροτῶν οὐδεὶς λύπας
εὕρετο μούσῃ καὶ πολυχόρδοις
ᾠδαῖς[3] παύειν, ἐξ ὧν θάνατοι
δειναί τε τύχαι σφάλλουσι δόμους.
καίτοι τάδε μὲν κέρδος ἀκεῖσθαι
μολπαῖσι[3] βροτούς· ἵνα δ' εὐδειπνοι
δαῖτες, τί μάτην τείνουσι βοήν;
τὸ παρὸν γὰρ ἔχει τέρψιν ἀφ' αὑτοῦ
δαιτὸς[1] πλήρωμα[3] βροτοῖσιν.
ΧΟΡΟΣ. ἰαχὰν ἄϊον[1] πολύστονον γόων,
λιγυρὰ[3] δ' ἄχεα μογερὰ[3] βοᾷ[1]
τὸν ἐν λέχει προδόταν κακόνυμφον·
θεοκλυτεῖ[3] δ' ἄδικα παθοῦσα
τὰν Ζηνὸς[1] ὁρκίαν Θέμιν,
ἃ νιν ἔβασεν[1] Ἑλλάδ' ἐς ἀντίπορον[3]
δι' ἅλα νύχιον ἐφ' ἁλμυρὰν[3]
πόντου κλῇδ'[1] ἀπέραντον.[3]

II.—1. Parse fully every word to which the figure (1) has been affixed in the text.

2. Derive or decompound every word to which the figure (2) has been affixed.

3. Elucidate the syntax of these expressions :—*πῶς ἂν ἔλθοι*,—*εἴ μεθείη*,—*μὴ ἀπέστω*,—*ὅταν ὁρμηθῇ*,—*οὐκ ἂν ἁμάρτοις*,—*φόβος εἰ πείσω*,—*δέργμα ἀποταυροῦται*,—*μόχθου χάριν ἐπιδώσω*,—*ἄχεα βοᾷ τὸν προδόταν*.

Appendix, No. 8.

Scholarship Examinations.

4. Notice any idioms, or any usage either of phrases or of individual words, which may seem to invite remark.

5. State the general laws of anapestic verse, and show whether one or more than one "system" is found in the extract.

6. (*a*) Mention the portions of an Attic tragedy in which Dorisms are admitted, and account for the fact historically. (*b*) Point out every Dorism found in certain of the above lines—anapaestic but not included in a system—and account for the admission of such forms in lines so constructed.

III. Translate the following sentences in Attic, marking the accentuation :—

1. These men say some one thing some another. 2. Make your own temperance an example to others. 3. Thinking that you were insulting me, you were making yourselves ridiculous. 4. To those who have committed such sins there is (left) no defence. 5. I see men differing in natural ability, but improving by attention. 6. They were willing to send away the ships on some fair arrangement. 7. We assert that the sober-minded man takes pleasure in the mere fact of being sober-minded. 8. Strength with prudence is advantageous, but without this it more frequently injures those who possess it.

I.—1. Translate this extract from the *Timon* of LUCIANUS :—

ΖΕΥΣ. *φεῦ τῆς ἀλλαγῆς! ὁ καλὸς ἐκεῖνος, ὁ πλούσιος, περὶ ὃν οἱ τοσοῦτοι φίλοι; τί παθὼν οὖν τοιοῦτός ἐστιν; αὐχμηρὸς καὶ ἄθλιος καὶ σκαπανεὺς καὶ μισθωτός, ὡς ἔοικεν, οὕτω βαρεῖαν καταφέρων τὴν δίκελλαν.* ΕΡΜ. *οὐτωσὶ μὲν εἰπεῖν, χρηστότης ἐπέτριψεν αὐτὸν καὶ φιλανθρωπία καὶ ὁ πρὸς τοὺς δεομένους ἅπαντας οἶκτος· ὡς δὲ ἀληθεῖ λόγῳ, ἄνοια καὶ εὐήθεια καὶ ἀκρισία περὶ τῶν φίλων· ὃς οὐ συνίει κόραξι καὶ λύκοις χαριζόμενος, ἀλλ', ὑπὸ γυπῶν τοσούτων ὁ κακοδαίμων κειρόμενος τὸ ἦπαρ, φίλους εἶναι αὐτοὺς καὶ ἑταίρους ᾤετο ὑπ' εὐνοίας τῆς πρὸς αὐτὸν χαίροντας τῇ βορᾷ. οἱ δέ, τὰ ὀστᾶ γυμνώσαντες ἀκριβῶς καὶ περιτραγόντες, εἰ δέ τις καὶ μυελὸς ἐνῆν ἐκμυζήσαντες καὶ τοῦτον εὖ μάλα ἐπιμελῶς, ᾤχοντο αὖον αὐτὸν καὶ τὰς ῥίζας ὑποτετμημένον ἀπολιπόντες, οὐδὲ γνωρίζοντες ἔτι οὐδὲ προσβλέποντες (πόθεν γὰρ ;) ἢ ἐπικουροῦντες ἢ ἐπιδιδόντες ἐν τῷ μέρει. διὰ ταῦτα δικελλίτης καὶ διφθερίας ὡς ὁρᾷς, ἀπολιπὼν ὑπ' αἰσχύνης τὸ ἄστυ μισθοῦ γεωργεῖ, μελαγχολῶν τοῖς κακοῖς, ὅτι οἱ πλουτοῦντες παρ' αὐτοῦ μάλα ὑπεροπτικῶς παρέρχονται οὐδὲ τοὔνομα—εἰ Τίμων καλοῖτο—εἰδότες.* ΖΕΥΣ. *καὶ μὴν οὐ παροπτέος ἀνὴρ οὐδὲ ἀμελητέος· εἰκότως γὰρ ἠγανάκτει δυστυχῶν· ἐπεὶ καὶ ὅμοια ποιήσομεν τοῖς καταράτοις κόλαξιν ἐκείνοις ἐπιλελησμένοι ἀνδρὸς τοσαῦτα μηρία ταύρων τε καὶ αἰγῶν πιότατα καύσαντος ἡμῖν ἐπὶ τῶν βωμῶν· ἔτι γοῦν ἐν ταῖς ῥισὶ τὴν κνῖσαν αὐτῶν ἔχω. πλὴν ὑπ' ἀσχολίας τε καὶ θορύβου πολλοῦ τῶν ἐπιορκούντων καὶ βιαζομένων καὶ ἁρπαζόντων, ἔτι δὲ καὶ ὑπὸ φόβου τοῦ παρὰ τῶν ἱεροσυλούντων (πολλοὶ γὰρ οὗτοι καὶ δυσφύλακτοι καὶ οὐδὲ ἐπ' ὀλίγον καταμῦσαι ἡμῖν ἐφιᾶσι), πολὺν ἤδη χρόνον οὐδ' ἀπέβλεψα ἐς τὴν Ἀττικήν, καὶ μάλιστα ἐξ οὗ φιλοσοφία καὶ λόγων ἔριδες ἐπεπόλασαν αὐτοῖς. μαχομένων γὰρ πρὸς ἀλλήλους καὶ κεκραγότων οὐδὲ ἐπακούειν ἐστὶ τῶν εὐχῶν· ὥστε ἢ ἐπιβυσάμενον χρὴ τὰ ὦτα καθῆσθαι ἢ ἐπιτριβῆναι πρὸς αὐτῶν ἀρετήν τινα καὶ ἀσώματα καὶ λήρους μεγάλῃ τῇ φωνῇ ξυνειρόντων. διὰ ταῦτά τοι καὶ τοῦτον ἀμεληθῆναι ξυνέβη πρὸς ἡμῶν οὐ φαῦλον ὄντα.*

2. Advert concisely to any constructions or idioms which may seem note-worthy, and point out the etymology of any words the origin and formation of which may not be quite obvious.

II.—Translate also the following extract from the *Hallcncia* of XENOPHON :—

*"ἀλλ' ὅπως μὲν ὀνκ ἐγγεγένηται ἁμαρτήματα καὶ ἀφ' ἡμῶν καὶ ἀφ' ὑμῶν ἐγὼ μὲν οὐκ ἂν ἔχειν μοι δοκῶ εἰπεῖν· οὐ μέντοι οὕτω γιγνώσκω ὡς τοῖς ἁμαρτάνουσιν οὐδέποτε ἔτι χρηστέον· ὁρῶ γὰρ τῶν ἀνθρώπων οὐδένα ἀναμάρτητον διατελοῦντα· δοκοῦσι δέ μοι καὶ εὐπορώτεροι ἐνίοτε γίγνεσθαι ἄνθρωποι ἁμαρτάνοντες, ἄλλως τε καὶ ἐὰν κολασθῶσιν ὑπὸ τῶν ἁμαρτημάτων, ὡς ἡμεῖς. * * * * ἃ δὲ βουλόμενοί τινες ἀποτρέπειν τὴν εἰρήνην διαβάλλουσιν, ὡς ἡμεῖς, οὐ φιλίας δεόμενοι, ἀλλὰ φοβούμενοι νὴ Ἀνταλκίδας ἔλθῃ ἔχων παρὰ βασιλέως χρήματα, διὰ τοῦθ' ἥκομεν, ἐνθυμήθητε ὡς φλυαροῦσι. βασιλεὺς μὲν γὰρ δήπου ἔγραψε πάσας τὰς ἐν τῇ Ἑλλάδι πόλεις αὐτονόμους εἶναι· ἡμεῖς δὲ ταὐτὰ ἐκείνῳ λέγοντές τε καὶ πράττοντες τί ἂν φοβοίμεθα βασιλέα; ἢ τοῦτο οἴεταί τις, ὡς ἐκεῖνος βούλεται χρήματα ἀναλώσας ἄλλους μεγάλους ποιῆσαι μᾶλλον ἢ ἄνευ δαπάνης ἃ ἔγνω ἄριστα εἶναι ταῦτα ἑαυτῷ πεπρᾶχθαι; * * * * ἀλλ' ὅτι μὲν πόλεμοι ἀεί ποτε γίγνονταί καὶ καταλύονται πάντες ἐπιστάμεθα, καὶ ὅτι ἡμεῖς, ἂν μὴ νῦν, ἀλλ' αὖθίς ποτε εἰρήνης ἐπεθυμήσομεν. τί οὖν δεῖ ἐκεῖνον τὸν χρόνον ἀναμένειν, ἕως ἂν ὑπὸ πλήθους κακῶν ἀπείπωμεν, μᾶλλον ἢ οὐχ ὡς τάχιστα πρίν τι ἀνήκεστον γενέσθαι τὴν εἰρήνην ποιήσασθαι;"*

LATIN.—*Examiner, Professor William Nesbitt,* M.A.

I.—Translate :—

1. Cum aliud praeterquam de quo retulissent, decemviri dicere prohiberent, Claudium interpellandi verecundia fuit. sententiam igitur peregit nullum placere senatus consultum fieri. omnesque ita accipiebant privatos eos a Claudio iudicatos; multique ex consularibus verbo adsensi sunt. alia sententia, asperior in speciem, vim minorem aliquanto habuit, quae patricios coire ad prodendum interregem iubebat. censendo enim, quoscumque magistratus esse qui senatum haberent, iudicabant; quos privatos fecerat auctor nullius senatus consulti faciendi. ita labente iam causa decemvirorum L. Cornelius Maluginensis, M. Cornelii decemviri frater, cum ex consularibus ad ultimum dicendi locum consulto servatus esset, simulando curam belli fratrem collegasque eius tuebatur, quonam fato incidisset mirari se dictitans, ut decemviros qui decemviratum petissent, aut socii, aut ii maxime oppugnarent; aut quid ita, cum per tot menses vacua civitate nemo, iustine magistratus summae rerum praeessent, controversiam fecerit, nunc demum, cum hostes prope ad portas sint, civilis discordias serant, nisi quod in turbido minus perspicuum fore putent, quid agatur. ceterum neminem, maiore cura occupatis animis, verum esse praeiudicium rei tantae adferre. sibi placere de eo, quo Valerius Horatiusque ante idus Maias decemviros abisse magistratu insimulent, bellis, quae immineant, perfectis re publica in tranquillum redacta senatu disceptante agi; et iam nunc ita se parare Ap. Claudium, ut comitiorum, quae decemviris creandis decemvir ipse habuerit, sciat sibi tiraonem reddendam esse, utrum in unum annum creati sint, an donec leges, quae deessent, perferrentur.—LIVIUS iii. 40.

Appendix, No. 8.

Scholarship Examinations.

1. Write brief notes on the following expressions :—*sententiam peregit; verbo assensi sunt; quae patricios coire ad prodendum interregem jubebat; præjudicium rei adferre.*

2. Give the dates of the institution of the tribunate and the decemvirate, and state the circumstances which led to each. What was the original number of the tribunes, and in what years did the successive augmentations of their number take place? What constitutional changes followed immediately on the downfall of the decemvirate? Give the date of the institution of the *comitia tributa;* describe its constitution, and show how it differed from that of the *comitia centuriata.*

II.—Translate into Latin prose :—

Lucius chose Lucius Tarquitus to be master of the horse, a brave man and of a burgher's house; but so poor withal, that he had been used to serve among the foot-soldiers instead of among the horse. Then the master of the people and the master of the horse went together into the forum, and bade every man to shut up his booth, and stopped all causes at law, and gave an order that none should look to his own affairs till the consul and his army were delivered from the enemy. They ordered also that every man who was of an age to go out to battle, should be ready in the field of Mars before sunset, and should have with him victuals for five days, and twelve stakes; and the older men dressed the victuals for the soldiers, whilst the soldiers went about everywhere to get their stakes. So the army was ready in the field at the time appointed; and they set forth from the city, and came to Algidus; and when they perceived that they were near the enemy, they made a halt. Then Lucius rode on, and saw how the camp of the enemy lay; and he ordered his soldiers to throw down all their baggage into one place, but to keep each man his arms and twelve stakes. Then they set out again in their order of march, as they had come from Rome, and they spread themselves round the camp of the enemy on every side.

Translate, adding brief notes when a word, a construction, or an allusion seems to require it :—

1. Mos erat Hesperio in Latio, quem protenus urbes
Albanae coluere sacrum, nunc maxima rerum
Roma colit, quum prima movent in proelia Martem,
Sive Getis inferre manu lacrimabile bellum
Hyrcanisve Arabisve parant, seu tendere ad Indos
Auroramque sequi Parthosquo reposcere signa.
Sunt geminae Belli portae—sic nomine dicunt—
Religione sacrae et saevi formidine Martis;
Centum aerei claudunt vectes aeternaque ferri
Robora, nec custos absistit limine Ianus:
Has, ubi certa sedet patribus sententia pugnae,
Ipse Quirnali trabea cinctugue Gabino
Insignis, reserat stridentia limina consul;
Ipse vocat pugnas, sequitur tum cetera pubes,
Aereaque adsensu conspirant cornua rauco.
Hoc et tum Aeneadis indicere bella Latinus
More iubebatur, tristesque recludere portas.
Abstinuit tactu pater, aversusque refugit
Foeda ministeria, et caecis se condidit umbris.
Tum regina deûm, coelo delapsa, morantes

Impulit ipsa manu portas, et cardine verso
Belli ferratos rumpit Saturnia postes.
Ardet inexcita Ausonia atque immobilis ante:
Pars pedes ire parat campis, pars arduus altis
Pulverulentus equis furit; omnes arma requirunt
Pars leves clipeos et spicula lucida tergent
Arvina pingui, subiguntque in cote secures;
Signaque ferre iuvat, sonitusque audire tubarum.

VIRGILIUS—*Æneid*, vii. 601–628.

2. Ecce autem duro fumans sub vomere taurus
Concidit et mixtum spumis vomit ore cruorem,
Extremosque ciet gemitus. It tristis arator,
Maerentem abiungens fraterna morte iuvencum,
Atque opere in medio defixa relinquit aratra.
Non umbrae altorum memorum, non mollia possunt
Prata movere animum, non qui per saxa volutus
Purior electro campum petit amnis; at ima
Solvuntur latera, atque oculos stupor urget inertes,
Ad terramque fluit devexo pondere cervix.
Quid labor aut benefacta iuvant? quid vomere terras
Invertisse graves? atqui non Massica Bacchi
Munera, non illis epulae nocuere repostae:
Frondibus et victu pascuntur simplicis herbae,
Pocula sunt fontes liquidi atque exercita cursu
Flumina, nec somnos abrumpit cura salubres.

VIRGILIUS—*Georg.* iii. 515–530.

3. Horrida tempestas coelum contraxit, et imbres
Nivesque deducunt Iovem; nunc mare, nunc siluae
Threicio Aquilone sonant: rapiamus, amici,
Occasionem de die, dumque virent genua
Et decet, obducta solvatur fronte senectus.
Tu vina Torquato move consule pressa meo;
Cetera mitte loqui: deus haec fortasse benigna
Reducet in sedem vice. Nunc et Achaemenio
Perfundi nardo iuvat et fide Cyllenea
Levare diris pectora sollicitudinibus,
Nobilis ut grandi cecinit Centaurus alumno:
"Invicte, mortalis dea nate puer Thetide,
Te manet Assaraci tellus, quam frigida parvi
Findunt Scamandri flumina lubricus et Simois,
Unde tibi reditum certo subtemine Parcae
Rupere, nec mater domum caerula te revehet.
Illic omne malum vino cantuque levato,
Deformis aegrimoniae dulcibus alloquiis."

HORATIUS—*Epod.* xiii.

QUESTIONS ON GRAMMAR.

1. What is meant by the stem of a word? Classify nouns according to the termination of their stems, and show that all their declensions were originally one. Give a similar classification of verbs.

2. Decline *plebs, vesper, poema, penus;* and give the principal parts of the verbs *lavo, ferveo, indulgeo, pungo, pendo, lino, pinso, facesso*, marking the quantities of doubtful syllables. Explain the forms *levasso, faxim, capso.*

Appendix, No. 8.
Scholarship Examinations.

3. Give the Latin symbols for numbers up to a million, and translate into Latin the following: "Cæsar took 5,320 Gauls prisoners." "This happened in the year 1628."

4. Explain the following expressions:—

Accepi vicies sestertium.
Servilicæ sexagies sestertio margaritam mercatus est.
Supplicatio indicta est ex ante diem quintum Idus Octobres.

(Give the rule for reducing a Roman to an English date.)

Cn. Pompeius Sex. F. Cn. N. Strabo.

(What did the three names of a Roman citizen respectively indicate?)

5. When a speech is changed from the *direct* to the *oblique* form, what changes of mood take place?

HISTORY AND THE ENGLISH LANGUAGE.—*Examiner, Professor Craik.*

ENGLISH.

1. A short, but very carefully written essay, *by every competitor*, on what we owe to the art of printing.

2. Explain what advantages you expect to derive from coming to College.

3. Sketch briefly the history of the conquest of England by the Normans.

4. Give an account of the Spanish Armada.

5. Give a short account of the second Messenian war.

6. Explain the origin of the Peloponnesian war, and state what side was taken by each of the States of Greece that engaged in it.

SECOND YEAR STUDENTS.

GREEK.—*Examiner, Professor MacDouall.*

I.—Translate perspicuously these lines from the XXth Book of the *Ilias*:—

αὐτὰρ ὃ Λαόγονον καὶ Δάρδανον υἷε[1] Βίαντος
ἄμφω ἐφορμηθεὶς ἐξ ἵππων ὦσε[1] χαμᾶζε,[2]
τὸν μὲν δουρὶ[1] βαλών, τὸν δὲ σχεδὸν ἄορι[2] τύψας.
Τρῶα δ' Ἀλαστορίδην—ὃ μὲν ἀντίος ἤπτετο γούνων,[1]—
εἴ πώς εὐ πεφίδοιτο,[1] λαβών, καὶ ζωὸν ἀφείη[1]
μηδὲ κατακτείνειεν ὁμηλικίην[2] ἐλεήσας,—
νήπιος,[2] οὐδὲ τὸ ᾔδη[1] ὃ οὐ πείσεσθαι[1] ἔμελλεν·
οὐ γάρ τι γλυκύθυμος ἀνὴρ ἦν οὐδ' ἀγανόφρων,[2]
ἀλλὰ μάλ' ἐμμεμαώς.[1] ὃ μὲν ἤπτετο χείρεσι[1] γούνων
ἱέμενος λίσσεσθ', ὃ δὲ φασγάνῳ οὖτα[1] καθ' ἧπαρ[1]·
ἐκ δὲ οἱ ἧπαρ ὄλισθεν,[1] ἀτὰρ μέλαν αἷμα κατ' αὐτοῦ
κόλπον ἐνέπλησεν,[1] τὸν δὲ σκότος[1] ὄσσε[1] κάλυψεν.
* * * * *
Δευκαλίωνα δ' ἔπειθ'—ἵνα τε ξυνέχουσι τένοντες[2]
ἀγκῶνος,[2] τῇ τόν γε φίλης διὰ χειρὸς ἔπειρεν[1]
αἰχμῇ χαλκείῃ. ὃ δέ μιν μένε χεῖρα βαρυνθείς[1]
πρόσθ' ὀράων θάματον· ὃ δέ φασγάνῳ αὐχένα θείνας[1]
τῇλ' αὐτῇ πήληκι κάρη[1] βάλε· μυελὸς αὖτε

σφονδυλίων[2] ἔκπαλθ'[1], ὃ δ' ἐπὶ χθονὶ κεῖτο τανυσθείς.[1]
αὐτὰρ ὃ βῆ[1] ῥ' ἴέναι μετ' ἀμύμονα[2] Πείρεω[1] υἱὸν
Ῥίγμον', ὃς ἐκ Θρῄκης ἐριβώλακος[2] εἰληλούθει.[1]
τὸν βάλε μέσσον ἀκοντι,[2] πάγη[1] δ' ἐν πνεύμονι[3] χαλκός·
ἤριπε[1] δ' ἐξ ὀχέων.[3] ὃ δ' Ἀρηίθοον θεράποντα
ἀψ ἵππους στρέψαντα μετάφρενον[3] ὀξέϊ δουρὶ
νύξ', ἀπὸ δ' ἄρματος ὦσε· κυκήθησαν δέ οἱ ἵπποι.
ὡς δ' ἀναμαιμάει[3] βαθέ' ἄγκεα θεσπιδαὲς[3] πῦρ
οὔρεος[1] ἀζαλέοιο,[2] βαθεῖα δὲ καίεται ὕλη,
πάντῃ τε κλονέων ἄνεμος φλόγα εἰλυφάζει,[2]
ὣς ὅ γε πάντῃ θοῦνε[1] σὺν ἔγχεϊ δαίμονι ἶσος
κτεινομένους ἐφέπων· ῥέε δ' αἵματι γαῖα μέλαινα.
ὡς δ' ὅτε τις ζεύξῃ βόας[1] ἀρσενας εὐρυμετώπους
τριβέμεναι[1] κρῖ[1] λευκὸν ἐυκτιμένῃ[3] ἐν ἀλωῇ,
ῥίμφα[3] τε λέπτ' ἐγένοντο βοῶν ὑπὸ πόσσ' ἐριμύκων[3]
* * * * *
ὣς ὑπ' Ἀχιλλῆος μεγαθύμου μώνυχες[3] ἵπποι
στεῖβον ὁμοῦ νέκυάς τε καὶ ἀσπίδας· αἵματι δ' ἄξων[2]
νέρθεν[2] ἄπας πεπάλακτο[1] καὶ ἄντυγες αἱ περὶ δίφρον,[3]
ἃς ἄρ' ἀφ' ἱππείων ὁπλέων[1] ῥαθάμιγγες[3] ἔβαλλον
ἠδ' ἀπ' ἐπισσώτρων.[3] ὃ δὲ ἵετο κῦδος ἀρέσθαι[1]
Πηλεΐδης, λύθρῳ[2] δὲ παλάσσετο χεῖρας ἀάπτους.[3]

1. (*a*) Parse fully every noun and verb to which the figure (1) is here affixed, mentioning whatever is noticeable in the flexion of each, and substituting for every Homeric form its Attic counterpart. (*b*) Give the forms which would be used in Attic prose instead of *τό* (vs. 7), *τῇ τόν γε* (vs. 14), *ὅ δέ μιν* (vs. 15), *εὖ* (vs. 5), *οἱ* (vs. 11), *ἵνα τε* (vs. 13), *ἠδέ* (vs. 37).

2. Derive or decompound every word to which the figure (2) is here affixed.

3. (*a*) Explain the use of the genitive *εὖ* in vs. 5,—of the dative *οἱ* in vs. 11, and also in another vs. which you will point out,—of the accusative in vs. 4, and also in a parallel vs. which you will point out,—of the double accusative in vs. 12, and also in another vs. which you will point out. (*b*) What idiom is exemplified in vs. 17? (*c*) Explain the usage of the infinitive in vs. 31,—of the subjunctive-passing in vs. 30,—and of the indicative-past-indefinite in vs. 32.

4. Point out any examples of illicit *hiatus* or *elisio* which you may observe in the lines printed above.

5. Some critics suppose only the *protasis*, in vss. 30, 31, 32, to be genuine here, and the *apodosis*, in vss. 33–37, to have been introduced—along with vs. 38—from other passages, in order to fill up the *lacuna*. State the main objection to vss. 33–37 in this context, and briefly discuss it.

II.—Translate also the following lines on the Moon-Goddess :—

Μήνην εὐειδῆ τανυσίπτερον ἔσπετε, Μοῦσαι,
ἡδυεπεῖς κοῦραι Κρονίδεω Διός, ἴστορες ᾠδῆς!
ἥς αἴγλη περὶ γαῖαν ἐλίσσεται οὐρανόδεικτος
χρυσείου ἀπὸ στεφάνου, ἀκτῖνες δ' ἐνδιάονται,
εὖτ' ἂν ἀπ' Ὠκεανοῖο, λοεσσαμένη χρόα καλόν,
εἵματα ἑσσαμένη τηλαυγέα, δῖα Σελήνη
ζευξαμένη προτέρω ἐλάσῃ καλλίτριχας ἵππους
ἐσπερίη διχόμηνος. ἀτὰρ πλήθει μεγας ὄγμος,
λαμπρόταται δ' αὐγαὶ τότ' ἀεξομένης τελέθουσιν
οὐρανόθεν. τέκμωρ δὲ βροτοῖς καὶ σῆμα τέτυκται.

Appendix, No. 8.

Scholarship Examinations.

I.—Translate perspicuously the annexed extract from the *Phædon* of PLATON :—

Λέγεται τοίνυν, ἔφη, ὦ ἑταῖρε! πρῶτον μὲν εἶναι τοιαύτη ἡ γῆ αὐτὴ ἰδεῖν, εἴ τις ἄνωθεν θεῷτο, ὥς περ αἱ δωδεκάσκυτοι[1] *σφαῖραι, ποικίλη, χρώμασι διειλημμένη,*[1] *ὧν καὶ τὰ ἐνθάδε χρώματα εἶναι ὥς περ δείγματα, οἷς δὴ οἱ γραφεῖς καταχρῶνται. ἐκεῖ δὲ πᾶσαν τὴν γῆν ἐκ τοιούτων εἶναι καὶ πολὺ ἔτι λαμπροτέρων καὶ καθαρωτέρων ἢ τούτων· τὴν μὲν γὰρ ἁλουργῆ*[1] *εἶναι καὶ θαυμαστὴν τὸ κάλλος, τὴν δὲ χρυσοειδῆ,*[1] *τὴν δὲ γύψου ἢ χιόνος λευκοτέραν, καὶ ἐκ τῶν ἄλλων χρωμάτων*[1] *ξυγκειμένην ὡσαύτως καὶ ἔτι πλειόνων καὶ καλλιόνων ἢ ὅσα ἡμεῖς ἑωράκαμεν. καὶ αὐτὰ ταῦτα δὴ κοῖλα αὐτῆς, ὕδατός τε καὶ ἀέρος ἔμπλεα ὄντα, χρώματός τι εἶδος παρέχεσθαι στίλβοντα ἐν τῇ τῶν ἄλλων ποικιλίᾳ, ὥστε ἕν τι αὐτῆς εἶδος ξυνεχὲς ποικίλον φαντάζεσθαι.*[1] *ἐν δὲ ταύτῃ οὕσῃ τοιαύτῃ ἀνὰ λόγον τὰ φυόμενα φύεσθαι, δένδρα τε καὶ ἄνθη καὶ καρπούς. καὶ τοὺς λίθους ἔχειν ὡσαύτως τήν τε λειότητα καὶ τὴν διαφάνειαν*[1] *καὶ τὰ χρώματα καλλίω· ὧν καὶ τὰ ἐνθάδε λιθίδια*[1] *εἶναι ταῦτα τὰ ἀγαπώμενα μόρια,*[1] *σάρδιά*[1] *τε καὶ ἰάσπιδας καὶ σμαράγδους καὶ πάντα τὰ τοιαῦτα· ἐκεῖ δὲ οὐδὲν ὅ τι οὐ τοιοῦτον εἶναι καὶ ἔτι τούτων κάλλιον. τὸ δ' αἴτιον τούτου εἶναι, ὅτι ἐκεῖνοι οἱ λίθοι καθαροί εἰσι καὶ οὐ κατεδηδεσμένοι οὐδὲ διεφθαρμένοι, ὥς περ οἱ ἐνθάδε, ὑπὸ σηπεδόνος*[1] *καὶ ἄλμης*[1] *ἀπὸ τῶν δεῦρο ξυνερρυηκότων,*[1] *ἃ καὶ λίθοις καὶ γῇ καὶ ζώοις καὶ φυτοῖς αἴσχη τε καὶ νόσους παρέχει. τὴν δὲ γῆν αὐτὴν κεκοσμῆσθαι τούτοις τε ἅπασι καὶ ἔτι χρυσῷ τε καὶ ἀργύρῳ καὶ ἄλλοις τοιούτοις. ἐκφανῆ γὰρ αὐτὰ πεφυκέναι, ὄντα πολλὰ πλήθει καὶ μεγάλα καὶ πανταχοῦ τῆς γῆς, ὥστε αὐτὴν ἰδεῖν εἶναι θέαμα εὐδαιμόνων θεατῶν. ζῶα δ' ἐπ' αὐτῆς εἶναι ἄλλα τε πολλὰ καὶ ἀνθρώπους, τοὺς μὲν ἐν μεσογείᾳ*[1] *οἰκοῦντας, τοὺς δὲ περὶ τὸν ἀέρα ὥς περ ἡμεῖς περὶ τὴν θάλατταν, τοὺς δὲ ἐν νήσοις ἃς περιῤῥεῖν τὸν ἀέρα πρὸς τῇ ἠπείρῳ οὔσας. καὶ ἑνὶ λόγῳ, ὅ περ τὸ ὕδωρ καὶ ἡ θάλαττά ἐστι πρὸς τὴν ἡμετέραν χρείαν, τοῦτο ἐκεῖ τὸν ἀέρα, ὅ δὲ ἡμῖν ὁ ἀήρ, ἐκείνοις τὸν αἰθέρα. τὰς δὲ ὥρας αὐτοῖς κρᾶσιν*[1] *ἔχειν τοιαύτην, ὥστε ἀνόσους εἶναι καὶ χρόνον ζῇν πολὺ πλείω τῶν ἐνθάδε, καὶ ὄψει καὶ ἀκοῇ καὶ ὀσφρήσει*[1] *καὶ πᾶσί τοῖς τοιούτοις ἡμῶν ἀφεστάναι τῇ αὐτῇ ἀποστάσει ᾗ περ ἀήρ τε ὕδατος ἀφέστηκε καὶ αἰθὴρ ἀέρος πρὸς καθαρότητα. καὶ δὴ καὶ θεῶν ἕδη τε καὶ ἱερὰ αὐτοῖς εἶναι, ἐν οἷς τῷ ὄντι οἰκητὰς*[1] *θεοὺς εἶναι, καὶ φήμας*[1] *τε καὶ μαντείας καὶ αἰσθήσεις τῶν θεῶν καὶ τοιαύτας ξυνουσίας γίγνεσθαι, καὶ τὸν ἥλιον καὶ σελήνην καὶ ἄστρα ὁρᾶσθαι ὑπ' αὐτῶν οἷα τυγχάνει ὄντα, καὶ τὴν ἄλλην εὐδαιμονίαν τούτων ἀκόλουθον*[1] *εἶναι.*

II.—1. (*a*) Give as clear a view as you can of the entire geological discussion of which the extract is a specimen, discriminating portions based upon observation of physical phaenomena from speculative generalizations, and both from the mythical setting of the picture. (*b*) Explain how this discussion is associated with and made to bear upon the doctrine relating to the future destinies of men which is unfolded in the context.

2. Explain the emphasis in *ἡ γῆ αὐτὴ* or *τὴν γῆν αὐτήν*,—the antithesis between *ἐνθάδε* and *ἐκεῖ* or between *ἡμῖν* and *ἐκείνοις*,—the phrases, *ταῦτα τὰ κοῖλα αὐτῆς ὕδατος καὶ ἀέρος ἔμπλεα, τῶν δεῦρο ξυνερρυηκότων*, and *οἰκοῦντας περὶ τὸν ἀέρα ὥς περ ἡμεῖς περὶ τὴν θάλατταν κ. τ. λ.*

3. Derive or decompound the words to which the figure (1) is affixed, noticing the classes of derivatives which they severally represent and the rules of word building which they exemplify.

III.—Retranslate in Attic prose the following statement of Phædon:— *Appendix, No. 8.*

Scholarship Examinations.

I for my part on entering his presence was affected strangely. It was not pity which penetrated me as one present at the death of a friend: for the man appeared to me to be happy, Echecrates! in both his frame of mind and his discourse—so fearlessly and nobly did he meet his death: so that it occurred to me, that not even in going to Hades was he going without a divine destiny, but that on arriving even there he would be happy, if ever man was. For this reason no feeling of pity at all influenced me, as might have seemed likely to be the case with one present at so sad a scene. Nor on the other hand did I experience pleasure from our being engaged, as was our custom, in philosophical discussions—for our conversation was of that nature. But an altogether unaccountable feeling possessed me, an unusual mixture compounded of pleasure and pain, while I considered that he was immediately about to die.

LATIN.—*Examiner, Professor William Nesbitt,* M.A.

Translate:—

1. *Antipho.* Non sum apud me. *Geta.* Atqui opus est nunc quum maxime ut sis, Antipho:
Nam si senserit te timidum pater esse, arbitrabitur
Commeruisse culpam. *Phædria.* Hoc verum 'st. A non possum immutarier.
G. Quid faceres, si aliud quid gravius tibi nunc faciundum foret?
A. Quum hoc non possum, illud minus possem. *G.* Hoc nihil est, Phædria: *ilicet*
Quid hic conterimus operam frustra? quin abeo? *Ph.* Et quidem ego. *A.* Obsecro,
Quid si adsimulo, satin' est? *G.* Garris. *A.* Vultum contemplamini; hem,
Satin' est sic? *G.* Non. *A.* Quid si sic? *G.* Propemodum. *A.* Quid si sic? *G.* Sat est:
Hém, istuc serva: et verbum verbo, par pari ut respondeas,
Ne te iratus suis sævidicis dictis *protelet.* *A.* Scio.
G. Vi coactum te esse, invitum, lege, judicio: tenes?
Sed quis hic est senex, quem video in ultima platea? *A.* Ipsus est.
Non possum adesse. *G.* Ah, quid agis? quo abis, Antipho?
Mane, inquam. *A.* Egomet me novi et peccatum meum:
Vobis commendo Phanium et vitam meam.
Ph. Geta, quid nunc fiet? *G.* Tu jam lites audies:
Ego *plectar pendens*, nisi quid me fefellerit,
Sed, quod modo hic nos Antiphonem monuimus,
Id nosmet ipsos facere oportet, Phædria.
Ph. Aufer mi oportet: quin tu, quid faciam, impera.
G. Meministin', olim ut fuerit vestra oratio
In re incipiunda ad defendendam noxiam,
Justam illam causam, facilem, vincibilem, optumam?
Ph. Memini. *G.* Hem, nunc ipsa 'st opus ea: aut, si quid potest,
Meliore et callidiore. *Ph.* Fiet sedulo.
G. Nunc prior adito tu. Ego in subsidiis hic ero
Succenturiatus si quid deficias. *Ph.* Age.

TERENCE—*Phormio*, i. 4-27.

Appendix, No. 8.

Scholarship Examinations.

(*a*) Write brief notes on the words printed in italics.
(*b*) Deduce the different uses of *quin* from its derivation.

2. Janua nunc Regis posita viret arbore Phœbi :
Ante tuas fit idem, Curia Prisca, fores.
Vesta quoque ut folio niteat velata recenti,
Cedit ab Iliacis laurea cana focis.
Adde, quod arcana fieri novus ignis in æde
Dicitur ; et vires flamma refecta capit.
Nec mihi parva fides, annos hinc isse priores,
Anna quod hos cœpta est mense Perenna coli.
Hinc etiam veteres initi memorantur honores
Ad spatium belli, perfide Pœne, tui,
Denique quintus ab hoc fuerat Quintilis : et inde
Incipit, a numero nomina quisquis habet.
Primus, oliviferis Romam deductus ab arvis,
Pompilius menses sensit abesse duos.
Sive hoc a Samio doctus, qui posse renasci
Nos putat ; Egeria sive monente sua.
Sed tamen errabant etiamnum tempora ; donec
Cæsaris in multis hæc quoque cura fuit.
Non hæc ille Deus, tantæque propaginis auctor,
Credidit officiis esse minora suis :
Promissumque sibi voluit prænoscere cœlum,
Nec Deus ignotas hospes inire domos.
Ille moras Solis, quibus in sua signa rediret,
Traditur exactis disposuisse notis.
Is decies senos trecentum et quinque diebus
Junxit, et e pleno tempora quarta die.
Hic anni modus est. In lustrum accedere debet,
Quæ consummatur partibus, una dies.

Ovid—*Fasti*, iii. 139–166.

(*a*) Write brief notes on *Regis*, *Curia Prisca*, *oliviferas* and *a Samio doctus*.
(*b*) What is the true explanation of the name *Anna Perenna?*

3. Tum vero infelix fatis exterrita Dido
Mortem orat : taedet coeli convexa tueri.
Quo magis inceptum peragat lucemque relinquat,
Vidit, turicremis quum donna imponeret aris,—
Horrendum dictu—latices nigrescere sacros,
Fusaque in obscenum se vertere vina cruorem.
Hoc visum nulli, non ipsi effata sorori.
Praeterea fuit in tectis de marmore templum
Coniugis antiqui, miro quod honore colebat,
Velleribus niveis et festa fronde revinctum :
Hinc exaudiri voces et verba vocantis
Visa viri, nox quum terras obscura teneret ;
Solaque culminibus ferali carmine bubo
Saepe queri et longas in fletum ducere voces.
Multaque praeterea vatum praedicta priorum
Terribili monitu horrificant. Agit ipse furentem
In somnis ferus Aeneas, semperque relinqui
Sola sibi, semper longam incomitata videtur
Ire viam et Tyrios deserta quaerere terra :
Eumenidum veluti demens videt agmina Pentheus,

Et solem geminum et duplices se ostendere Thebas;
Aut Agamemnonius scenis agitatus Orestes,
Armatam facibus matrem et serpentibus atris
Quum fugit, ultricesque sedent in limine Dirae.

VIRGIL—*Æneid.* iv. 450–473.

Translate into Latin Hexameters :—

Come track with me this little vagrant rill,
Wandering in wild course from the mountain's breast;
Now with a brink of varied flowers drest,
And playing with the sloping buds at will,
Now moving scarce with noiseless step and still.
Anon it seems too weary of its rest,
And hurries on, leaping with sparkling zest
Adown the ledges of the broken hill.
So let us live——

1.—Translate :—

1. Iamque omnibus satis comparatis ad traiciendum terrebant ex adverso hostes omnem ripam equites virique obtinentes; quos ut averteret, Hannonem Bomilcaris filium vigilia prima noctis cum parte copiarum, maxime Hispanis, adverso flumine ire iter unius diei iubet, et ubi primum possit, quam occultissime traiecto amni circumducere agmen, ut, cum opus facto sit, adoriatur ab tergo hostem. ad id dati duces Galli edocent, inde milia quinque et viginti ferme supra parvae insulae circumfusum amnem latiorem, ubi dividebatur, eoque minus alto alveo transitum ostendere. ibi raptim caesa materia ratesque fabricatae, in quibus equi virique et alia onera traicerentur. Hispani sine ulla mole in utres vestimentis coniectis ipsi caetris superpositis incubantes flumen tranavere. et alius exercitus ratibus iunctis traiectis, castris prope flumen positis, nocturno itinere atque operis labore fessus quiete unius diei reficitur, intento duce ad consilium opportune exsequendum. postero die profecti ex loco prodito fumo significant transisse et haud procul abesse. quod ubi accepit Hannibal, ne tempori deesset, dat signum ad traiciendum. iam paratas aptatasque habebat pedes lintres. eques fere propter equos nantes navium agmen ad excipiendum adversi impetum fluminis parte superiore transmittens tranquillitatem infra traicientibus lintribus praebebat. equorum pars magna nantes loris a puppibus trahebantur praeter eos, quos instratos frenatosque, ut extemplo egresso in ripam equiti usui essent, imposuerant in naves.

LIVY, xxi. 27.

What emendations have been proposed for *prodito*?

How has the corrupt reading, *eques fere propter equos nantes*, been amended?

Explain the following :—

(*a*) Tantumque aberat ut sua *signa* atque *ordinem* miles et *locum* nosceret.

(*b*) *Prodictatorem populus creavit* Q. Fabium Maximum. Who had been the last dictator *rei gerendæ causa?* When may the dictatorship be said to have been abolished?

(*c*) Plebei scitum *antiquo abrogoque*, et sub imperium *auspiciumque* tuum redeo.

(*d*) —— res inde gestas ——*et augentis titulum imaginis* posteros, ut, qui pro dictatore fuisset, dictator crederetur facile obtinuisse.

Appendix, No. 8.

Scholarship Examinations.

(*e*) Æris *gravis* viginti milia.

(*f*) Nam ad eum diem nihil praeter *sacramentum* fuerat; et ubi *ad decuriatum aut centuriatum* convenissent, sua voluntate ipsi inter sese decuriati equites centuriati pedites conjurabant. (Give Madvig's emendation.)

(*g*) Quod Hannibal jam *vel usa* cepisset Italiam.

2. Quo mihi etiam indignius videtur obtrectatum esse adhuc, Gabinio dicam anne Pompeio, an utrique, id quod est verius, ne legaretur A. Gabinius Cn. Pompeio expetenti ac postulanti. Utrum ille, qui postulat ad tantum bellum legatum quem velit, idoneus non est qui impetret, quum caeteri ad expilandos socios diripiendasque provincias quos voluerunt legatos eduxerint, an ipse, cuius lege salus ac dignitas populo Romano atque omnibus gentibus constituta est, expers esse debet gloriae eius imperatoris atque exercitus, qui consilio ipsius ac periculo est constitutus? An C. Falcidius, Q. Metellus, Q. Caelius Latiniensis, Cn. Lentulus, quos omnes honoris causa nomino, quum tribuni plebi fuissent, anno proximo legati esse potuerunt: in uno Gabinio sunt tam diligentes, qui in hoc bello, quod lege Gabinia geritur, in hoc imperatore atque exercitu, quem per vos ipse constituit, etiam praecipuo iure esse deberet? De quo legando consules spero ad senatum relaturos. Qui si dubitabunt aut gravabuntur, ego me profiteor relaturum, neque me impediet cuiusquam inimicum edictum, quo minus vobis fretus vestrum ius beneficiumque defendam, neque praeter intercessionem quidquam audiam, de qua, ut arbitror, isti ipsi qui minantur, etiam atque etiam quid liceat considerabunt.

CICERO—*De Imperio Cn. Pompei*; c. 19.

(*a*) What law prevented Gabinius from being Pompey's legatus? The law does not seem to have been strictly observed? The cases cited by Cicero in favour of Gabinius' commission are not to the point? Write notes on, *ego me profiteor relaturum ;—inimicum edictum ;—vestrum jus beneficiumque.*

(*b*) In what year was the speech "de Imperio Cn. Pompei" delivered? Apart from its merits, it is interesting as forming an epoch in Cicero's oratorical career.

Translate into Latin Prose :—

The entire defeat of Antony's army made all people presently imagine that the war was at an end, and the liberty of Rome established; which would probably have been the case, if Antony had either perished in the action, or the consuls survived it; but the death of the consuls, though not felt so sensibly at first, in the midst of their joy for the victory, gave the fatal blow to all Cicero's schemes, and was the immediate cause of the ruin of the Republic. Hirtius was a man of letters and politeness, intimately intrusted with Cæsar's counsels, and employed to write his acts; but as he was the proper creature of Cæsar, and strongly infected with his party, so his views were all bent on supporting the power that had raised him, and serving his patron, not the public. In the beginning, therefore, of the civil war, when he was tribune of the people, he published a law to exclude all who were in arms with Pompey from any employment or office in the state; which made him particularly obnoxious to the Pompeians, who considered him as their most inveterate enemy.

HISTORY AND ENGLISH LITERATURE.—*Examiner, Professor Craik.*

ENGLISH.

1. A short, but carefully written, Essay, by every competitor, on the Pleasures and Advantages of Life at College.

2. Explain distinctly the position of the English language in what is called the Indo-European family of Languages.

3. Give an account of the English language, both in its grammar and in its vocabulary; first, as it existed before the Norman Conquest; secondly, in its present form.

4. Describe the principal differences between the English of the fourteenth century and that of the present day.

5. State what is the function that is principally performed by each of the ingredients of which our present Compound English is made up.

6. Give an account of the work called the Ormulum, and of the author's system of orthography.

MODERN LANGUAGES.

*** *Senior Scholarship* Students are expected to do the *whole* paper. To *Junior Scholarship* Students the *German* or *French* portion only of the paper is assigned.

PHILOLOGICAL AND LITERARY QUESTIONS.

1. State what you may know respecting:

   (*a*) The German Meiſter and Minneſänger.
   (*b*) The French *Troubadours* and *Trouvères.*

2. Give some account of Herders's "Ideen zur Geſchichte der Menſchheit," &c.

3. Name some of the works of the two brothers Grimm—attended by a brief biographical sketch (in *German* preferably).

4. What do we mean (accord. to Grimm) by "Lautverſchiebung"? Define this word, and give instances of the principle itself. Show also: that the Fr. "*dorm-ir*" is *identical* with (old Sax.) "*drŏm-en;*" (high Germ.) träumen; (Dutch) *droom;* (Danish) *dröm;* (old Norsk.) *draumr* (involving a change in *form* and in *meaning* of the word).

5. Define *etymologically* the Danish word "*vikingtog,*" and show the connexion of the *radical factor* of this word ("*vik*") with *oik-os.* Does the French "*guich-et*" belong to this group? and if so, according to what *established law?* Can we, moreover, show the *etymol. identity* of the French "*guich-et*" with Eng. "*wick-et,*" both as regards the *meaning* and *form* of this word?

6. Reconcile the form Mach:t (from mag, *infin.* mĕg:en) with the Eng. *may;* in like manner, Nach:t with Germ. nah, by the medium of the *Ang.* or *old Sax.* forms.

7. Define the terms *langue romane, langue d'oc, langue doïl, langue morotique.*

8. Explain historically the *component factors* that enter into the formation of the *French language.*

9. In what special direction has French literature most advanced since the time of Louis XIV?

10. When does the *Siècle de Louis XIV.* begin in literature? Compare any of the writers of this period with any of that immediately preceding it.

Appendix, No. 8.

Scholarship Examinations.

*** Senior Scholarship Students are expected to do one of the papers fully (French or German), and moreover engage upon the *second*. To *Junior Scholarship* Students the choice is left between either paper.

Translate into English :—

Oreste. De Pammène, il est vrai, la sage vigilance
D'Egisthe pour un temps trompe la défiance ;
On lui dit que les dieux, de Tantale ennemis,
Frappaient en même temps les derniers de ses fils,
Peut-être que le Ciel, qui pour nous se déclare,
Répand l'aveuglement sur les yeux du barbare.
Mais tu vois ce tombeau si cher à ma douleur ;
Ma main l'avait chargé de mon glaive vengeur,
Ce fer est enlevé par des mains sacrilèges.
L'asile de la mort n'a plus de priviléges ;
Et je crains que ce glaive, à mon tyran porté,
Ne lui donne sur nous quelque affreuse clarté.
Précipitons l'instant où je veux le surprendre.

Pylade. Pammène veille à tout, sans doute il faut l'attendre.
Dès que nous aurons vu dans ces bois écartés,
Le peu de vos sujets à vous suivre excités,
Par trois divers chemins retrouvons-nous ensemble.
Non loin de cette tombe, au lieu qui nous rassemble.

Oreste. Allons.—Pylade, ah Ciel ; ah, trop barbare loi !
Ma rigueur assassine un cœur qui vit pour moi !
Quoi ! j'abandonne Electre à sa douleur mortelle !

Pylade. Tu l'as juré, poursuis, et ne redoubte qu'elle.
Electre peut te perdre et ne peut te servir ;
Les yeux de tes tyrans sont tout prêts de s'ouvrir :
Renferme cette amour et si sainte et si pure.
Doit-on craindre en ces lieux de dompter la nature ?
Ah ! de quels sentimens te laisses-tu troubler ?
Il faut venger Electre, et non la consoler.

Oreste. Pylade, elle s'avance, et me cherche peut-être.

Pylade. Ses pas sont épiés ; garde-toi de paraître.
Va, j'observerai tout avec empressement :
Les yeux de l'amitie se trompent rarement.

Translate into German or French :—

Bacon maintains, that one of the great drawbacks to wholesome legislation is, that those who have written of laws have written of them either as philosophers or as lawyers, and but few as statesmen. The philosophers make imaginary laws for imaginary commonwealths : "and their discourses are as the stars, which give little light because they are so high." The lawyers, on the other hand, sin on the other tack, by looking at what law *is*, not what it *ought to be*. "The wisdom of a law-maker consists not only in a platform of justice, but in the application thereof; taking into consideration by what means laws may be made certain, and what are the causes and remedies of the doubtfulness and uncertainty of law." The great value of general learning and philosophy, in legislative matters, is very emphatically insisted on by Bacon.

Translate into English :—

Die Würgerscene fing jetzt an, für welche die Geschichte keine Sprache und die Dichtkunst keinen Pinsel hat. Nicht die schuldfreie Kindheit, nicht das hülflose Alter, nicht Jugend, nicht Geschlecht, nicht Stand, nicht Schönheit, können die Wuth des Siegers entwaffen. Frauen werden in den Armen ihrer Männer, Töchter zu den Füßen ihrer Väter mißhandelt, und das wehrlose Geschlecht hat blos das Vorrecht, einer doppelten Wuth zum Opfer zu dienen. Keine noch so verborgene, keine noch so geheiligte Stätte konnte vor der Alles nachforschenden Habsucht sichern. Dreiundfunfzig Frauenpersonen fand man in einer Kirche enthauptet. Kroaten vergnügten sich, Kinder in die Flammen zu werfen—Pappenheims Wallonen, Säuglinge an den Brüsten ihrer Mütter zu spießen. Einige liguistische Officiere, von diesem grausenvollen Anblicke empört, unterstanden sich, den Grafen Tilly zu erinnern, daß er dem Bluthade möchte Einhalt thun lassen. „Kommt in einer Stunde wieder," war seine Antwort. „Ich werde dann sehen, was ich thun werde; der Soldat muß für seine Gefahr und Arbeit etwas haben." In ununterbrochener Wuth dauerten diese Gräuel fort, bis endlich Rauch und Flammen der Raubsucht Grenzen setzen. Um die Verwirrung zu vermehren und den Widerstand der Bürger zu brechen, hatte man gleich anfangs an verschiedenen Orten Feuer angelegt. Jetzt erhob sich ein Sturmwind, der die Flamme mit reißender Schnelligkeit durch die ganze Stadt verbreitete und den Brand allgemein machte. Fürchterlich war das Gedränge durch Qualm und Leichen, gezückte Schwerter, durch stürzende Trümmer, durch das strömende Blut. Die Atmosphäre kochte, und die unerträgliche Gluth zwang endlich selbst diese Würger, sich in das Lager zu flüchten. In weniger als zwölf Stunden lag diese volkreiche, feste, große Stadt, eine der schönsten Deutschlands, in der Asche, zwei Kirchen und einige Hütten ausgenommen. Der Administrator, Christian Wilhelm, ward mit drei Bürgermeistern nach vielen empfangenen Wunden gefangen; viele tapfere Officiere und Magistrate hatten fechtend einen beneideten Tod gefunden. Vierhundert der reichsten Bürger entriß die Habsucht der Officiere dem Tode, um ein theures Lösegeld von ihnen zu erpressen. Noch dazu waren es meistens Officiere von der Ligue, welche diese Menschlichkeit zeigten, und die blinde Mordbegier der kaiserlichen Soldaten ließ sie als rettende Engel betrachten.

Translate into English :—

„Tief in den Fels, auf dem es hängt,
Ist eine Grotte eingesprengt,
Vom Thau des nahen Moors befeuchtet,
Wohin des Himmels Strahl nicht leuchtet.
Hier hauste der Wurm und lag,
Den Raub erspähend, Nacht und Tag.
So hielt er, wie der Höllendrache,
Am Fuß des Gotteshauses Wache;
Und kam der Pilgrim hergewallt
Und lenkte in die Unglücksstraße,
Hervorbrach aus dem Hinterhalt
Der Feind und trug ihn fort zum Fraße

„Den Felsen stieg ich jetzt hinan,
Eh' ich den schweren Strauß begann;
Hinkniet' ich vor dem Christuskinde
Und reinigte mein Herz von Sünde.
Drauf gürt' ich mir im Heiligthum
Den blanken Schmuck der Waffen um,

Appendix, No. 8.

Scholarship Examinations.

Bewehre mit dem Spieß die Rechte,
Und nieder ſteig' ich zum Gefechte.
Zurücke bleibt der Knappen Troß;
Ich gebe ſcheidend die Befehle
Und ſchwinge mich behend' auf's Roß,
Und Gott empfehl' ich meine Seele.

Kaum ſeh' ich mich im eb'nen Plan,
Flugs ſchlagen meine Doggen an,
Und bang' beginnt das Roß zu keuchen
Und bäumet ſich und will nicht weichen;
Denn nahe liegt, zum Knäul geballt,
Des Feindes ſcheußliche Geſtalt,
Und ſonnet ſich auf warmem Grunde.
Auf jagen ihn die flinken Hunde;
Doch wenden ſie ſich pfeilgeſchwind,
Als es den Rachen gähnend theilet,
Und von ſich haucht den gift'gen Wind,
Und winſelnd wie der Schakal heulet.

Translate into English or French :—

Che nella luna, o in altro pianeta, si generino o erbe o piante o animali simili ai nostri, o vi si facciano pioggie, venti, tuoni, come intorno alla terra; io non lo so, e non lo credo; e molto meno, che ella sia abitata da uomini. Ma non intendo già come, tuttavoltachè non vi si generino cose simili alle nostre, si deva di necessità concludere che niuna alterazione vi si faccia, nè vi possano essere altre cose che si mutino, si generino e si dissolvano, non solamente diverse dalle nostre, ma lontanissime dalla nostra immaginazione, e in somma del tutto a noi inescogitabili. E siccome io son sicuro che a uno nato e nutrito in una selva immensa, tra fiere e uccelli, e che non avesse cognizione alcuna dell' elemento dell' acqua, mai non gli potrebbe cadere nell' immaginazione, essere in natura un altro mondo diverso dalla terra, pieno di animali li quali senza gambe e senza ale, velocemente camminano, e non sopra la superficie solamente, come le fiere sopra la terra, ma per entro tutta la profondità; e non solamente camminano, ma dovunque piace loro, immobilmente si fermano; cosa che non posson fare gli uccelli per aria; e che quivi di più abitano ancora uomini, e vi fabbricano palazzi e città, e hanno tanta comodità nel viaggiare, che senza niuna fatica, vanno con tutta la famiglia e con la casa e con le città intere, in lontanissimi paesi; siccome, dico, io son sicuro che un tale, ancorchè di perspicacissima immaginazione, non si potrebbe già mai figurare i pesci, l' oceano, le navi, le flotte, e le armate di mare; così, e molto più, può accadere che nella luna, per tanto intervallo remota da noi, e di materia per avventura molto diversa dalla terra, sieno sustanze, e si facciano operazioni, non solamente lontane, ma del tutto fuori, d' ogni nostra immaginazione, com equelle che non abbiano similitudine alcuna con le nostre, e perciò del tutto inescogitabili.—
GALILEI.

Translate into English or French :—

Or che diranno
I posteri di noi? Diran che in Tito
Si stancò la Clemenza,
Come in Silla e in Augusto

La crudeltà. Forse diran che troppo
Rigido io fui; ch'eran difese al reo
I natali e l'età, che un primo errore
Punir non si doveva? che un ramo infermo
Subito non recida
Saggio cultor, se a risanarlo in vano
Molto pria non sudò? che Tito al fine
Era l'offeso, e che le proprie offese
Sinza ingiuria del giusto
Ben poteva obbliar—Ma dunque ro faccio
Si gran forza al mio cor? nè almen sicuro
Sarò ch'altri m'approvi? Ah non si lasci
Il solito cammin. Viva l'amico,
Benchè infedele, e se accusarmi il mondo
Vuol pur di qualche errore
M'accusi di pietà non di rigore.

METASTASIO (*La Clemenza di Tito*).

SCIENCE SCHOLARSHIPS.—FIRST YEAR STUDENTS.

MATHEMATICS.—*Examiner, Professor Purser.*

ARITHMETIC AND ALGEBRA.

1. A merchant sells out some stock which he holds in the 3 per cent. Consols, and invests the proceeds in railway shares, returning four per cent. dividends. By so doing he increases his income by £39.

The Consols stand at 93. The railway hundred pound shares at 98. Find how much stock the merchant sells.

2. Find the greatest common measure of

285714 and 999999,
and of $(10353)^3$ and $(14877)^3$.

3. Given that the second term of a geometric series = 21, the last term = 567, the sum of the terms = 847. Find the first term.

4. Solve the equations:

(α) $\sqrt{a+x}+\sqrt{a-x}=\sqrt{b}$.

(β) $\sqrt{x^2+3x+5}+\sqrt{2x^2-6x+2}=\sqrt{3x^2+5x+1}$.

(γ) $x-1=2+\frac{2}{\sqrt{x}}$.

5. Find the condition that $Ax^2+2Bxy+Cy^2$ should be always of the same sign whatever real values are assigned to x and y.

6. Given the sum of any number of quantities. Prove that their continued product is greatest when they are all equal.

7. The two sides of a right-angled triangle which contain the right angle are 17 and 11. Calculate to three decimal places the segments into which the perpendicular let fall from the right angle divides the hypotenuse.

8. Prove that the value of (x) which satisfies the quadratic $ax^2-2bx+c=0$ may be written in the form

$$\frac{b+\sqrt{b^2-ac}+mc}{m(b-\sqrt{b^2-ac})+a}$$ where m is perfectly arbitrary.

Appendix, No. 9.

Scholarship Examinations.

9. Show that if

$$x+y+z=xyz \quad 1+\{(1+x^2)(1+y^2)(1+z^2)\}^{\frac{1}{2}}=xy+yz+zx.$$

10. A starts from Belfast to walk to Lisburn, and at the same time B leaves Lisburn to walk to Belfast. When A reaches Lisburn, B has walked $2\frac{1}{3}$ miles beyond the point where he met A. Find their relative rates of walking, taking the whole distance at seven miles.

Can you give any interpretation to the negative answer?

11. Define accurately the logarithm of a number to a given base. What are the characteristics of the logarithms of 47 and ·007 to the base 3?

What are the advantages secured by selecting 10 as the base?

GEOMETRY AND TRIGONOMETRY.

1. Inscribe a circle in a given triangle.

2. If similar rectilineal figures be described on the three sides of a right-angled triangle, the area of the figure described on the hypotenuse is equal to the sum of the areas of those described on the sides.

3. From one extremity A, of the base of a triangle ABC, a line is drawn bisecting the opposite side in the point M. Prove that a line drawn through the vertex of the triangle and through the middle point of AM will, when produced, cut the base AB in a point of trisection.

4. Perpendiculars let fall from the vertices of a triangle upon the opposite sides meet in a point, and the circle drawn through the feet of these perpendiculars passes through the middle points of the sides.

5. Define the circular measure of an angle. What theorem is involved in the definition?

At what distance would a man six feet high subtend an angle of one minute?

6. Show that $\cos 20° \cos 40° \cos 80° = \frac{1}{8}$.

7. Prove $\cot\frac{\theta}{2} - \cot\theta = \frac{1}{\sin\theta}$ and $\frac{1-\tan\theta}{1+\tan\theta} = \sqrt{\frac{1-\sin 2\theta}{1+\sin 2\theta}}$.

8. Prove that in any triangle

$$a\cos B + b\cos A = c$$
$$b\cos C + c\cos B = a$$
$$c\cos A + a\cos C = b$$

and derive from these equations the known relation amongst the cosines of the angles of a triangle.

9. In a plane triangle given base ($c=14$) vertical angle ($C=60°$) and sum of side ($a+b=22$). Calculate the sides.

10. Show that if ϕ denote the angle which the bisector of the vertical angle of a triangle makes with the base

$$\tan\phi = \tan\tfrac{1}{2}C\frac{a+b}{a-b}.$$

11. Prove the formula

$$\tan^{-1}\frac{m}{n} + \tan^{-1}\frac{n-m}{n+m} = \frac{\pi}{4}.$$

Calculate to three places of decimals the value of π.

Appendix, No. 8.

Scholarship Examinations.

Second Year Students.

Mathematics.—*Examiner, Professor Purser.*

ALGEBRA, TRIGONOMETRY, &c.

1. Eliminate $x\ y\ z$ from the equations

$$ay + bz + c = 0$$
$$cz + ax + b = 0$$
$$bx + cy + a = 0$$
$$cx + by + az = 0$$

2. When is it possible to express $\sqrt{a+\sqrt{b}}$ in the form $\sqrt{x}+\sqrt{y}$?

Express in this form $\sqrt{17+4\sqrt{15}}$.

3. In a certain town the annual excess of the births over the deaths has borne for the last n years a given ratio $l : 1$ to the population at the beginning of each year. During this period there has been a uniform annual emigration of x persons. Given a and b the numbers in the town at the beginning and end of the period, find x the yearly loss by emigration.

4. Prove that the result of eliminating x between the two quadratics $ax^2 + 2bx + c = 0$ $\quad a'x^2 + 2b'x + c' = 0$ may be expressed in the form

$$4(ac - b^2)(a'c' - b'^2) = (ac' + ca' - 2bb')^2$$

5. Find the sum of the series $1^2 + 4^2 + 7^2 + 10$ &c., to n terms.

6. If $a\ b\ c$ be three consecutive numbers, show that

$$\log_e(c) = 2\log_e(b) - \log_e(a) - 2\left\{\frac{1}{2ac+1} + \frac{1}{3(2ac+1)^3} + \text{&c.}\right.$$

Given $\log_e(5) = 1{\cdot}60944$
$\log_e(6) = 1{\cdot}79176$

Calculate $\log_e(7)$ to five places of decimals.

7. The quadrilateral whose sides are $a\ b\ c\ d$ can be inscribed in a circle. Prove that the radius of this circle is given by the formula

$$R = \frac{1}{4}\sqrt{\left\{\frac{(ab+cd)(ac+bd)(ad+bc)}{(s-a)(s-b)(s-c)(s-d)}\right\}} \quad \text{where } 2s = a+b+c+d.$$

8. Given two sides of a triangle and the included angle, show how to calculate the third side by means of a subsidiary angle.

9. Prove that the sum of the sines of the angles of a triangle can never exceed $\frac{3\sqrt{3}}{2}$.

10. If $\alpha\beta\gamma$ are the bisectors of the angles of a triangle whose sides are $a\ b\ c$

$$\frac{\alpha\ \beta\ \gamma}{a\ b\ c} = \frac{4 \text{ area of triangle } (a+b+c)}{(a+b)(b+c)(c+a)}.$$

11. Prove rigorously each of the following expressions for $\sin(\theta)$

$$\sin\theta = \theta - \frac{\theta^3}{1\ 2\ 3} + \frac{\theta^5}{1\ 2\ 3\ 4\ 5} - \quad \text{&c.}$$

$$\sin\theta = \theta\left(1 - \frac{\theta^2}{\pi^2}\right)\left(1 - \frac{\theta^2}{2^2\pi^2}\right)\left(1 - \frac{\theta^2}{3^2\pi^2}\right) \quad \text{&c.}$$

What series can be summed by the comparison of these expressions?

Appendix, No. 8.

Scholarship Examinations.

ANALYTICAL GEOMETRY.

1. Prove the formula for transferring oblique co-ordinate into rectangular, the origin and the axis of (x) remaining unchanged.

Example.—Transform the equation $x^2+y^2+\sqrt{3}.xy=a^2$ to rectangular axes, the angle between the old axes being 30°.

2. Find the equation of the line passing through the point x_1y_1 and perpendicular to the line joining that point to x_2y_2.

Hence find the equation of the circle described upon the line joining the points x_2y_2 x_3y_3 as diameter.

3. Investigate the equation of the line bisecting the angle between the lines

$$x \cos \alpha \text{ and } y \sin \alpha - p = 0 \quad x \cos \alpha' + y \sin \alpha' - p' = 0$$

Hence prove that the three bisectors of the angles of a triangle meet in a point.

4. Find the condition that three points x_1y_1 x_2y_2 x_3y_3 lie in a right line.

Show that if $\frac{x_1y_2-y_1x_2}{l-m}=\frac{x_2y_3-y_2x_3}{m-n}=\frac{x_3y_1-y_3x_1}{n-l}$ this condition is satisfied.

5. A point moves so that the perpendicular let fall from it upon the base of a given isosceles triangle is a mean proportional between the perpendiculars on the sides. Find the equation of its locus, taking the base of the triangle and the perpendicular let fall from the vertex as axes.

DIFFERENTIAL CALCULUS.

1. As (x) increases indefinitely, $\left(1+\frac{1}{x}\right)^x$ tends to a limit lying between 2 and 3.

Prove this, and find the differential co-efficients depending on this limit.

2. Find the differential co-efficient of x^m for any value of m without assuming the binomial theorem for other than positive integral exponents.

3. Differentiate

$$x\sqrt{a^2-x^2}+a^2 \sin^{-1}\frac{x}{a}; \quad \tan\left(e^{\frac{1}{x}}\right) \qquad x^{\frac{1}{x}}.$$

CONIC SECTIONS.

[N.B.—The propositions to be proved geometrically.]

1. Prove that in a parabola the subnormal is constant.

From this property can be at once deduced the radius of curvature at the vertex.

2. The tangent to an ellipse makes equal angles with the lines joining the foci to the point of contact.

3. If a conic section be inscribed in a quadrilateral, the centre lies on the line joining the middle points of the diagonals.

ENGINEERING SCHOLARSHIPS.—SECOND YEAR STUDENTS.

PHYSICS.—*Examiner, Dr. Stevelly.*

1. State the argument derived from the microscopic examination of the silicious exuviæ of the Diatomaceæ (Tripoli) for the extreme state of subdivision in which matter may exist.

2. Describe the process by which Woollaston obtained his fine Platina wires for micrometers, and explain the facts that must be observed, and the calculations that must be made, to determine the diameter of these wires.

3. Describe the three states in which matter is found to be capable of existing. Exemplify each of these states in the case of water, and state the leading facts as to heat, temperature and volume which distinguish each of these states from the other.

4. State the law which is found to govern the elevation and depression of liquids in capillary tubes, and explain the relation of the capillary forces which determines whether a liquid will be elevated or depressed.

5. Enumerate the triangular law of equilibrium of three forces acting on a body, and state the method of experimentally proving its truth.

6. Explain when a heavy body constrained to move freely round a fixed axis or along a rigid surface, will move or be in equilibrio, and describe and distinguish the three states of equilibrium in one or other of which it may be found.

7. Describe the balance, state the requisite properties of a good balance, the adjustments by which they are attained, and explain the principle and method of alternate weighing.

8. Describe the method adopted by Captain Kater for determining the length of the pendulum which oscillates in a second at the Royal Observatory, Greenwich; state the length of that pendulum as fixed by the Act of Parliament, and point out the property of the pendulum on which the method was founded.

9. If a heavy body be plunged beneath the surface of a heavy fluid, explain what determines whether it will, if left to itself, sink further, rise to the surface, or remain without any tendency to sink or swim. State the magnitude and direction of the force which, at any instant, acts to change its position; and if it rise, explain how far it will rise.

10. Describe the experiments which show that air is elastic. State the laws which are found to govern the elastic force of air, and give an outline of the experimental proof of these laws.

11. Describe the action of the tourmaline on light, and explain how, and why, two transparent tourmaline crystals may be so arranged as even to obliterate the mid-day sun if interposed between it and the eye.

12. Describe the method of determining the plane of the magnetic meridian by the aid of a well-mounted dipping needle alone, and explain the principle of this method of observing it.

GEOMETRICAL DRAWING.—*Examiner, Professor James Thomson.*

1. In Descriptive Geometry:—To draw a plane through a given point and through a given line.

2. Given the traces of a plane, to find the angles which the plane makes with the two planes of projection, and also the angle between the traces.

3. Explain, without a diagram, the principle on which to draw, through a given point, a straight line which shall meet two given straight lines.

4. If two straight lines be given by their projections, how can you ascertain whether the lines intersect one another or not?

5. In the accompanying diagram,* a straight line $a\ b$, $a'\ b'$, and a sphere, are given by their projections. Find the projections of the points in which the straight line cuts the surface of the sphere.

* Diagram not printed.

Appendix, No. 8.

Scholarship Examinations.

6. Test the accuracy of your result in the foregoing question by finding the true distance from the centre of the sphere to each of the points you have determined as those in which the given line cuts the given spherical surface. The distance in each case ought to come out equal to the radius of the sphere.

7. Explain the method of drawing in perspective, by the use of vanishing points and measuring points; and show, at the same time, to what kind of objects this method is applicable.

8. Criticise the following extracts from authors on Perspective:—

(*a*) "The *point of sight* is that spot to which the eye of the spectator is supposed to be directed when he looks straight before him."—*Penley on Perspective*, p. 10.

(*b*) "An object is in parallel perspective when one side, or the front, of that object immediately faces the spectator, and lies parallel to his own body, while the lines of the other side recede directly from him; as in the case of a direct view down a passage or into a street or room."—*Penley on Perspective*, p. 11.

(*c*) "The *vanishing points*, lying in the horizontal line" [are the] "points to which the straight lines of all objects in angular perspective converge."—*Penley*, p. 16.

(*d*) "In Geometrical Drawing" [meaning orthographic projection] "all lines that are parallel in the original object are drawn parallel in the representation; whereas, in perspective drawing, all representations of parallel lines incline towards each other, and tend to the same point. This point is always placed on the horizontal line" [or horizon line of the picture] "and is called the vanishing point."—*Pyne on Perspective*, p. 10; also, p. 99.

(*e*) "Those lines" [of the original object] "that lie in a direction parallel to the plane of delineation" [or picture surface] "have no vanishing point, but are represented by lines parallel to the ground line of the picture" [that is, to the base or construction-base of the picture].—*Pyne on Perspective*, p. 92.

9. Explain the general principles of the methods ordinarily adopted for finding the projections of the lines of intersection of bodies bounded by plane or curved surfaces.

10. Assume a "ground line," or intersection of two planes of projection, across the middle of your sheet of paper. With a radius of $\frac{3}{4}$ of an inch describe a circle, with its centre 2 inches below the ground line. Inscribe in the circle a regular hexagon having two sides parallel to the ground line. Take this hexagon as the base of a vertical six-sided prism, half an inch in height, with a regular six-sided pyramid standing on the top of the prism as base, and having its height 1 inch. Draw the horizontal and vertical projections of the object so made up, and draw its shadow cast on the horizontal plane of projection. Also, distinguish between the illuminated faces of the pyramid and those turned away from the light. In this you are to assume the light as falling in the direction ordinarily used in the projection of shadows.

11. Make an isometrical drawing of a house in outline, according to the dimensions shown in the accompanying sketch.* The natural scale, or scale of the model projected isometrically is to be $\frac{1}{8}$th of an inch to a foot.

12. Make another isometrical drawing of the same house on an isometric scale of $\frac{1}{8}$th of an inch to a foot.

* Sketch not printed.

CHEMISTRY.—*Examiner, Dr. Andrews.*

1. If a bar of iron at the temperature of 100°C. be plunged into an equal weight of mercury at 0°C., what will the final temperature of the two metals be, all corrections being made for cooling and for the containing vessel (spec. heat of mercury 0·033, of iron 0·114).

2. Give an account of the result of recent researches on the absorption of heat from low sources (100°C.) by different gases and vapours.

3. Describe the method of obtaining ice by means of ether or liquid ammonia, and explain the theory of the process.

4. Give an account of the chemical action of the different parts of the solar spectrum.

5. When oxide of copper is reduced by hydrogen gas, a large quantity of heat is evolved, while this does not occur with the oxide of iron; explain the cause of this difference.

6. If the density of the vapour of sulphur be assumed to be double that of oxygen in the sulphur compounds, what will be the composition by volume of sulphurous acid gas and of sulphuretted hydrogen?

7. A solution recently prepared by anhydrous phosphoric acid precipitates albumen, but loses that property after being boiled for some time; explain this change of property.

8. How is hydrofluoric acid prepared, and what are its chief properties?

9. Under what conditions do chlorine and carbonic oxide combine, and what is the composition of the compound?

10. What are the tests for cyanogen when in combination with hydrogen.

11. Write the formulas of the following bodies, viz.:—ferrocyanide of potassium, ferridcyanide of potassium, Prussian blue, alum, tartar emetic, potash-chloride of platinum.

12. Give in symbols the reactions which take place when sulphuretted hydrogen is passed through acid solutions of arsenious acid and of tartar emetic.

13. What are the principal ores of iron? State also their composition, and particularly that of the clay iron stone.

14. Give an account of the compounds of mercury with oxygen and chlorine.

15. How is the density of a vapour determined?

16. How is the hardness of a water determined?

17. State the composition of cast iron, and also of the slag of the iron furnaces.

18. Give an account of the mode of reducing lead from the native sulphuret.

19. Describe the tangent galvanometer.

20. State Ohm's law.

THIRD YEAR STUDENTS.

NATURAL PHILOSOPHY.—*Examiner, Dr. Stevelly.*

1. A pole 6 feet long projects perpendicularly from a vertical wall. Its outer end is tied up to a hook in the wall, 8 feet above the pole; and to that outer end a body which weighs 160 lbs. is suspended. Find the strain which endangers the breaking of the tie, and the thrust which endangers the pole, respectively. State the rule by which you work, and prove its truth.

Appendix, No. 8.

Scholarship Examinations.

2. State where the centre of gravity of a pyramid (also of a cone) of uniform density is placed, and prove what you assert.

3. Find the expression for the force which, acting horizontally at the centre of a wheel whose radius is R, and which is loaded at its centre with the total weight W, will just lift that weight over an obstacle, whose weight is h, placed before the wheel.

4. A wheel of 6 feet in diameter, mounted with an axle of 7 inches diameter, has a flexible rope 2 inches in diameter wound round the axle, and strained in a direction which makes an angle of 30° with the axis of the wheel and axle, by a force of 36 cwts.; find the power which, acting tangentially to the wheel, would produce equilibrium.

5. Show that a number of forces will equilibrate, if they act perpendicularly to the faces of a solid polygon, in proportion to the lengths of the sides on which they act, and in directions which all meet at one point.

6. A free body moves from rest under the action of a uniformly accelerating force. It is moving at the rate of 60 ft. 8 in. at the end of the third second; find the distance it has moved over, and the number which expresses the accelerating force.

7. Enunciate the general rates by which you find these numbers in the last question.

8. With the data of the last two questions, find the space the body would move over in the fourth second, the force continuing to act; and the space it would describe in the fourth second if all external force ceased.

9. The earth revolves on its axis in 86,164 seconds mean time; find the number which expresses its angular velocity, stating clearly the units to which that number is referred.

10. Explain how the angle is found at which the rudder of a ship must be turned to the keel, in order to obtain the greatest steering effect.

11. On a day on which the barometer stands at 29·73 inches, calculate the pressure of the air on each square inch of surface exposed to it.

12. Explain what opticians mean by the absolute index of refraction, and by the relative index, and how, when you know the absolute indices of two media, you find the ratio of the sines of incidence and refraction of light passing from one of these into the other.

SURVEYING, LEVELLING, MENSURATION, &c.—*Examiner, Professor James Thomson.*

1. Set the horizontal limb of the theodolite before you to read 123° 43′.

2. The water surface in a tank when full is a rectangle of 300 ft. × 200 ft. The slopes of the internal faces are 2 horizontal to 1 vertical. What quantity of water would be contained in the uppermost 10 ft. of depth?

3. Give an easy demonstration of the prismoidal formula in the following form:—

$$\text{Content} = bl.\frac{h+h'}{2} + \frac{r}{3}(h^2 + hh' + h'^2)l.$$

4. Take out from Sir John Macneill's Tables, and from Bidder's Table, the quantity of earth in a cutting with the following data:—

Formation width = 30 ft. Slopes, $1\frac{1}{2}$ to 1.
End heights, 20 and 33 feet.
Length, 1 chain of 66 feet.

5. If a transit theodolite of the kind you have seen in this College be already in perfect adjustment for measuring angles of azimuth, what are the additional adjustments required to put it in order for measuring

angles of altitude? Recollect that one is of a permanent kind, and that another is temporary, requiring to be made each time that the instrument is taken from its box, and placed on its stand for use. In Simms on Instruments, it is stated that the horizontal wire should have a *definite position in respect to the divisions of the vertical limb.* State whether this is correct or not, and give your reasons.

6. How may the area comprised within a boundary surveyed by traversing be computed?

7. How may the ranging and chaining of a straight line, interrupted both as to seeing and walking along it by an obstruction, be conducted in each of the two following cases, the ground in both cases being open and accessible past the obstruction, on one side at least:—First, when the station at the commencement and the direction of the line from that forward to the obstruction are given; and second, when the stations at both extremities are given, but there is no point in the line between them from which they can both be seen?

8. Show that in Gravatt's level there is no exact height in the telescope tube at which the horizontal wire ought necessarily to be adjusted, and explain the bearing of this on Gravatt's rules for the adjustment of his instrument.

9. Explain how to set out the "*half breadths*" for a railway cutting in sidelong ground.

10. Explain how, in a theodolite, an image is formed of an object towards which the telescope is directed; and how the cross-wires are used in respect to the image so formed.

11. If a telescope such, for instance, as that of a theodolite, or levelling instrument, be directed to a set of objects, so as to have its circular field of view occupied by their image, and if a portion of the object-glass, such as one semi-circular half of it, or more, be obscured by an opaque cover applied close to it, how will the field of view, as seen by looking into the telescope in the ordinary way, be affected? Explain the reasons for your answer fully and clearly.

12. Criticise the following extract from Pyne on Perspective:—

"The rules of perspective are deduced from the science of optics, depending on the fact of vision being caused by rays of light passing from the object seen into the eye, and forming an image at the back of it, similar to the reflection of an object in a mirror."—(*Pyne*, p. 81.)

GEOLOGY.—*Examiner, Dr. Wyville Thomson.*

1. Sketch generally the geological structure of county Antrim, and give an ideal section through any part of it.

2. Name the sub-divisions of the Devonian system in ascending order, sketch their distribution in Britain, and name one or two of the characteristic fossils of each sub-division.

3. Name some of the principal coal fields of Europe and America, stating the geological age of the coal, and the conditions under which it is found in each.

4. Give an outline of the distribution, in geological time, of the various groups of fossil crustacea.

5. What is meant by "denudation?" and what are its results? Give some marked examples.

6. What causes chiefly regulate the distribution of plants? Give an outline of the principal zones of vegetation. What is meant by "representative" species? What is meant by "specific centres," and what causes regulate the distribution of plants from such centres?

Appendix, No. 8.

Scholarship Examinations.

Medical Scholarships.—Second Year Students.

Chemistry.—*Examiner, Dr. Andrews.*

1. If a bar of iron at the temperature of 100°C. be plunged into an equal weight of mercury at 0°C., what will the final temperature of the two metals be, all corrections being made for cooling and for the containing vessel (spec. heat of mercury 0·033, of iron 0·114)?

2. Give an account of the result of recent researches on the absorption of heat from low sources (100°C.) by different gases and vapours.

3. Describe the method of obtaining ice by means of ether or liquid ammonia, and explain the theory of the process.

4. Give an account of the chemical action of the different parts of the solar spectrum.

5. When oxide of copper is reduced by hydrogen gas, a large quantity of heat is evolved, while this does not occur with the oxide of iron; explain the cause of this difference.

6. If the density of the vapour of sulphur be assumed to be double that of oxygen in the sulphur compounds, what will be the composition by volume of sulphurous acid gas and of sulphuretted hydrogen?

7. A solution recently prepared of anhydrous phosphoric acid precipitates albumen, but loses that property after being boiled for some time; explain this change of property.

8. How is hydrofluoric acid prepared, and what are its chief properties?

9. Under what conditions do chlorine and carbonic oxide combine, and what is the composition of the compound?

10. What are the tests for cyanogen when in combination with hydrogen?

11. Write the formulas of the following bodies, viz.:—ferrocyanide of potassium, ferridcyanide of potassium, Prussian blue, alum, tartar emetic, potash-chloride of platinum.

12. Give in symbols the reactions which take place when sulphuretted hydrogen is passed through acid solutions of arsenious acid and tartar emetic.

13. What are the principal ores of iron? State also their composition, and particularly that of the clay iron stone.

14. Give an account of the compounds of mercury with oxygen and chlorine.

15. How is the density of a vapour determined?

16. State the composition of acetic acid and of aldehyde, and show how these bodies are related to alcohol.

17. What are the relations between the hippuric and benzoic acids, and how may they be derived from one another?

18. Give an account of the so-called protein compounds.

19. What are the alcaloids of the nux vomica, and their characteristic reactions?

20. Explain the formation of carbonate of ammonia in urine, when in a state of decomposition.

Anatomy and Physiology.—*Examiner, Dr. Redfern.*

1. Name the specimens numbered 1 to 6. State from which side of the body each was obtained, and describe the characteristic markings on which your opinion is based.

2. Give an account of the attachment, insertion, relations, and action of the biceps muscle of the arm.

2. By what characters would you recognise the following teeth :—the first lower bicuspid, the first and the third lower true molars, and the molars of the temporary set. *Appendix, No. 8.*

4. State the characters of the red and white corpuscles of man's blood; and describe those corpuscles which possess remarkable or exceptional characters in the blood of vertebrata. Scholarship Examinations.

5. For what purposes is aliment required in the human body? What principles are essential in the food of a healthy adult man? What would happen if the diet were confined to a single alimentary principle.

BOTANY.—*Examiner, Dr. Wyville Thomson.*

1. Give the characters of the natural order Leguminosæ, and of its sub-orders. Name the principal medicinal and economic plants belonging to the different sub-orders, indicating the general therapeutic properties of each sub-order, and sketch the geographical distribution of the order and sub-orders.

2. Describe in detail the structure of the flower and fruit in any one grass.

3. Describe the reproductive organs, and the modes of reproduction in Marchantia.

4. Describe a tuber, a corm, a rhizome, and a bulb, and give examples of the three last, from two endogenous natural orders.

5. Describe the mode of reproduction in one of the olive sea-weeds (*Fucaceæ*).

6. Describe the structure and reproduction of the Desmideæ, and state in what they differ from the Diatomaceæ.

ZOOLOGY.

1. Describe the structure of the base of the brain-case in the cod, the lamprey, and the lancelet (*Amphioxus*).

2. Describe the changes which take place in the organs of respiration and circulation during the development of the tadpole and young frog.

3. Describe the general structure of the leech, detailing the form and arrangement of the nervous system, and the organs of nutrition and of reproduction.

4. Name the most common internal parasites met with in the human body.

5. Describe the organs of respiration of the Arachnida, and contrast them with those of the Crustacea and Insecta.

6. Describe the origin, structure, and relations of the medusoid gonophore of one of the Corynidæ.

THIRD YEAR STUDENTS.

ANATOMY AND PHYSIOLOGY.—*Examiner, Dr. Redfern.*

1. Name the specimens numbered 1 to 6. State from which side of the body each was obtained, and describe the characteristic markings on which your opinion is based.

2. State the attachment, insertion, course, relations, and action of the peroneus longus muscle.

3. Describe an ultimate lobule of the human lung, and the distribution and arrangement of its blood-vessels.

Appendix, No. 8.

Scholarship Examinations.

4. What theories of the coagulation of the blood have been propounded by Richardson, Lister, Brücke, and Schmidt, respectively.

5. What is the action of the spleen upon the blood? Distinguish those changes in the splenic blood which you believe to have been satisfactorily determined, from the others.

PRACTICAL CHEMISTRY.—*Examiner, Dr. Andrews.*

1. Describe the different methods of taking the density of a solid body, and the precautions required in order to secure an accurate result.

2. What are the characteristic spectrum lines of potassium, sodium, lithium, and strontium?

3. State the composition of the ammonio-magnesian phosphate, and the method of analyzing it, so as to show the presence of all its constituents.

4. Explain in symbols the reaction which takes place when the proto-sulphate of iron is converted into a mixture of sesqui-sulphate and sesqui-nitrate by the action of nitric acid.

5. What are the blowpipe tests for the oxides of manganese, cobalt, copper, and tin?

6. What are the distinguishing properties of calomel and arsenious acid?

7. What is the action of re-agents on a solution of corrosive sublimate?

8. Give an account of the preparation and leading properties of meconic acid.

9. How would you separate hippuric acid from human urine, and exhibit its characteristic properties?

10. Describe Liebig's method of determining the amount of urea in urine.

11. What are the tests for gelatine? Mention also some of its derivatives.

FOURTH YEAR STUDENTS.

ANATOMY.—*Examiner, Dr. Redfern.*

1. Name the specimens numbered 1 to 6. State from which side of the body each was obtained, and describe the characteristic markings on which your opinion is based.

2. Describe the ligaments which connect the sixth rib with the vertebræ, stating the position, attachments, and appearance of each ligament.

3. Describe, in exact order, the steps of such a dissection as will expose the popliteus muscle. No description of the parts is required, except such as is necessary for their recognition.

4. Where are branches of the fifth pair of cranial nerves distributed upon skin and membrane. Mention the extent of distribution, together with each named branch of nerve.

PHYSIOLOGY.

1. Mention the parts of the human body in which pigment exists, and describe each of the structures in which the pigment is contained.

2. Describe fully the microscopical characters of the human dentine, and mention the modifications of that structure in the teeth of animals.

3. What relation maintains in point of time between the pulsation in the arteries of the extremities and the second sound of the heart? What results have been arrived at by the Sphygmograph, as to the influence of the heart on the column of blood in the arteries.

4. Explain the nature of the following acts; state the parts of the nervous system concerned in the production of each; and illustrate each by an example. The acts are:—1st, reflex; 2nd, consensual; 3rd, emotional; 4th, ideo-motor; and 5th, volitional acts.

THEORY AND PRACTICE OF MEDICINE.—*Examiner, Dr. Cuming.*

1. Give the diagnostic signs which enable Typhus to be distinguished from Typhoid Fever, and state in what respects the treatment of the one disease differs from that of the other.

2. What is the pathology of the different forms of softening of the brain?

3. How can functional be distinguished from organic murmurs of the heart?

4. State the anatomical characters observed after death from acute dysentery.

5. Give the pathology of cirrhosis of the liver.

6. How would you treat a case of acute peritonitis occurring in a healthy subject?

SENIOR SCHOLARSHIPS.

BOTANY.—*Examiner, Dr. Wyville Thomson.*

1. Describe the early stages of the development of the embryo in any one flowering plant.

2. Describe the fruit and the development of the embryo in the Marsileaceæ.

3. Give the mode of development and the structure of phytozoa (spermatozooids), and describe the conditions under which they occur in *Chara*.

4. Describe some of the leading forms of placentation. What was Schleiden's view as to the origin of the placenta, and in what does his view differ from that adopted by many botanists? In what British natural orders do we meet with a free central placenta? Describe the early stages in the development of such a placenta, as it has been observed in some of the Caryophyllaceæ.

5. Contrast the dog-hep with the fig, detailing the homologies of the parts of each during the successive stages of their development.

6. Give the characters of the genus *Rosa*, and state the particulars in which it differs from *Pyrus*, *Crataegus*, *Potentilla*, *Rubus*, and *Fragaria*.

ZOOLOGY.

1. Describe the structure, mode of development, and mode of action of striated muscular tissue.

2. Describe some of the more marked modifications in the form and situation of the liver in the Invertebrata.

3. Describe the structure of a compound eye.

4. State in detail the structural and developmental characters which distinguish Amphibia from Reptiles and Fishes.

5. Describe the centre of the nervous system, and the distribution of

Appendix, No. 8.

Scholarship Examinations.

the principal nervous trunks in a brachyurous crustacean, and contrast in detail the nervous system of such a crustacean with that of an Annelid.

6. Describe the vascular and respiratory systems of a spider, a leech, an insect, an Echinoderm, and a Mollusk.

7. Describe the development of the embryo and young in the Mollusca Nudibranchiata.

8. Describe a characteristic example of each of the orders of Actinozoa.

9. Give the classification of the Rhizopods adopted by Carpenter, with the characters of the leading groups.

CHEMISTRY.—*Examiner, Dr. Andrews.*

1. State the changes required in the ordinary atomic weights according to the unitary system, and show how, with these atomic weights, the vapour-volumes of water, hydrochloric acid, ammonia, and other compounds, will be double the corresponding volumes of the elementary bodies.

2. What is the law of the diffusion of the gases, and how has it been established?

3. The following is the composition of the mineral augite, as given by analysis:—

Silica, ...	54·8
Lime, ...	24·8
Magnesia, ...	18·5

Calculate its formula (Si = 14; Ca = 20; Mg = 12; O = 8).

4. How would you analyse gunpowder?

5. How would you determine the amount of potash in feldspar (a silicate of alumina and potash) by the hydrofluoric acid method?

6. Give the general formulas of all the derivatives from alcohol.

7. What are the constituents of coal gas, and how would you analyse a given volume of it?

8. State the general method of extracting thallium from the "flue dust" of the pyrites chambers, and describe its leading properties.

9. What are the relations of glycol and glycerine to ordinary alcohol? State also their formulas.

10. Describe Cagniard de la Tour's experiments on the conversion, under great pressures, of liquids into vapours.

*** In addition to answering the above questions, the Candidates were required to perform a number of qualitative analyses.

MODERN HISTORY.—1864.—*Examiner, Professor Craik.*

The last 14 Chapters of *The Student's Hume.*

1. Set down in order the English Kings and Queens Regnant from the beginning of the seventeenth century to the present day, with the date of the accession of each.

2. State, and explain in the order of time, all the cases of succession to the Crown since Elizabeth, in which the father has not been followed by his eldest son.

3. Enumerate the principal Parliamentary leaders on the popular side at the commencement of the reign of Charles I., and notice, very shortly, anything remarkable or memorable in the subsequent career or end of any of them.

4. Distinguish by dates and other such brief descriptive particulars, but without going into details, the Petition of Right, the Declaration of Rights, the Bill of Rights, and the Scotch Claim of Rights.

5. Give the dates of the commencement and termination of the three Dutch Wars of the seventeenth century, of the War of the Spanish Succession, of the Seven Years' War, of the War of American Independence, and of the Wars of the French Revolution.

6. Explain, with as much brevity as possible, the terms Puritans, Delinquents, Roundheads, Cavaliers, Whigs, Tories, Trimmers, Petitioners, Abhorrers, Court and Country Parties, noting when they first came into use.

7. Give an account of the Act of Settlement.

8. Write a rapid sketch of the Peninsular Campaigns of Wellington, confining yourself to the principal battles, and giving as many dates as you can.

9. Give the dates of the Acts of Union with Scotland and with Ireland, and explain the representation in the two Houses of Parliament thereby established for each country.

---

1. Enumerate, in their order, with the dates wherever you can give them, the successive English Parliaments from the accession of James I. to the deposition of James II.

2. Explain what course was taken for the calling of a Parliament in the extraordinary circumstances, first, of the Restoration, and again, of the Revolution.

3. Sketch either of the following scenes (not forgetting the date):—The intrusion of Charles I. into the House of Commons in quest of the Five Members; or, the expulsion of the Long Parliament by Cromwell.

4. Enumerate the principal battles fought in England and Scotland in the course of the ten years that followed the breaking out of the war between Charles I. and the Parliament, giving the date of each, the commanders on both sides, and the issue.

5. Enumerate in their order, and with their dates, the great Continental victories of Marlborough, adding the names of the commanders to whom he was opposed on each occasion.

6. Give an account of any one of the following battles:—The Boyne, La Hogue, Dettingen, Fontenoy, Prestonpans, Culloden, Bunker's Hill, The Nile, Assaye, Waterloo, The Alma.

7. State the circumstances (always with the dates) of the deaths of Wolfe, of Nelson, and of Sir John Moore.

8. Enumerate, with the dates, the principal English Administrations, or Premierships, from that of Sir Robert Walpole to that of Lord Liverpool.

9. Sketch the last public appearance of Chatham.

MODERN HISTORY.—1865.—*Examiner, Professor Craik.*

1. Describe the person and character of King William III.

2. State how King William formed his first ministry, and upon what principle he continued or endeavoured to appoint the servants of the Crown throughout his reign.

3. Give an account of the First Treaty of Partition, and of what was its result.

4. Give the dates of the accession of Charles I.; of the passing of the Petition of Right; of the assembling of the Long Parliament; of the

Appendix, No. 8.

Scholarship Examinations.

King's attempt to seize the Five Members; and of his erection of his standard at Nottingham.

5. Give an account of the affair of Wood's Halfpence.

6. Whom did George I., George II., his son Frederick, and George III. marry?

7. Mention the distinguished personages connected with the question of the Spanish Succession, or with the Revolution in England, who died one in each of the four years from 1699 to 1702 inclusive, adding, if you can, the *month* in which each death took place.

8. Give an account of the three most remarkable English publications produced by the first outbreak of the French Revolution.

9. Give an account of the marriages of James II., of his son, and of his grandson.

---

1. Sketch the character of Oliver Cromwell.

2. Explain, not in a tabular form, but with precision, in so many distinct paragraphs, the claims of the several candidates for the succession of Charles II. of Spain.

3. Give an account of the loss of the Royal George.

4. Describe the battle of Dettingen.

5. Give an account of the American Declaration of Independence.

6. Sketch rapidly the course of the Scottish Rebellion of 1745, only mentioning in the order of their sequence the principal events, without going into details.

7. Explain the origin of the Seven Years' War.

8. Describe the trial and execution of Lord Russell.

9. Give an account of the American Stamp Act and Tea Acts, and of the manner in which the first export of tea under the new system was received in the Colonies.

Law Scholarships.—First Year Students.

English Law.—*Examiner, Professor Molyneux.*

REAL PROPERTY.

1. Why, from the nature of the property, is a deed necessary to pass incorporeal estate?

2. What is the difference between the following estates, *in relation to tenure?* viz., a lease to A for 99 years; a lease to A for 99 years, if B shall live so long; a lease to A for 3 lives; a lease to A for 99 years, if he, A, shall so long live.

3. What is the difference between legal and equitable estates in relation to the rights and remedies of the owners?

4. What is the legal meaning of the word "tenant" in our law?

5. What tenure is essential to constitute an estate of inheritance?

6. A, seized of Blackacre and Whiteacre in fee simple, grants Blackacre to B for 1000 years, and grants Whiteacre to C. How do those estates differ in point of duration?

7. If lands be given to a man and the heirs male of his body, and he has issue only a daughter, who has issue a son, and dies; what is the effect as to the estate given?

8. What condition is imposed upon a tenant in tail *in remainder*, who desires to bar remainders over and reversion which does not apply to tenant in tail *in possession?*

9. Tenant in fee-simple in Blackacre, being also tenant for 1000 years in Whiteacre, dies; what difference exists as to the devolution of those several interests respectively?

10. A tenant of lands in fee-simple grants to B for his life, remainder to the right heirs of B. B conveys the lands to a stranger in tail, and dies leaving one son; what are the rights of such son in relation to those lands?

11. What state of facts is essential to entitle a remainder-man to the benefit of his remainder after the determination of the particular estate.

12. Three joint-tenants in fee-simple; one of them releases his share to another of the three; what is the effect of such release upon the joint-tenancy?

13. What are the rights of a husband with respect to his wife's real estate?

14. What is the mode by which married women may convey their estates in fee-simple since the 3rd and 4th Wm. IV. in England, and 4th and 5th Wm. IV. in Ireland?

15. What advantage and disadvantage have accrued to married women by the Dower Act, 3rd and 4th Wm. IV.?

16. What is the difference between privity of contract and privity of estate? Give an example of each.

17. A, by bargain and sale, conveys a fee-simple estate to B and his heirs to the use of C and his heirs; what estates, legal or equitable, do B and C respectively take? and state the reasons.

18. What are the formalities prescribed by the 1st Vic. to constitute a valid execution?

19. What change has been effected by the Statute of Descents, 3rd and 4th Wm. IV., as to the person from whom descent is to be traced?

20. If, before the statute 3rd and 4th Wm. IV., tenant in fee-simple died, leaving his father his sole blood relation surviving, upon whom would the lands devolve?

JURISPRUDENCE.—*Examiner, Professor Leslie.*

1. How are defects in the law, arising from *omission*, to be remedied, according to Lord Bacon?

2. State the substance of Lord Bacon's aphorisms respecting *retrospective* laws.

3. State the causes of *obscurity* in laws, according to Lord Bacon.

4. "That industry which aims at something more than necessary subsistence, was established in cities long before it was commonly practised by the occupiers of land in the country." How is this to be accounted for by the state of the law in town and country respectively, according to Adam Smith?

5. Define Law, and Positive Law, distinguishing the latter from *positive morality*.

6. What are the ideas comprehended by the word *command*?

7. Customary Law has been treated by some writers as "an exception to the proposition that laws are commands." State their argument, and Mr. Austin's answer to it.

8. What are the distinguishing marks of sovereignty, and of an independent political society?

9. "It follows from the *essential difference of positive law*, and from the nature of sovereignty, that the power of a monarch is incapable of legal limitation." Explain this.

10. What were the original functions of the English jury, and what

Appendix, No. 8.

Scholarship Examinations.

is the connecting link between them and the functions of the modern jury?

11. "The laws of the Anglo-Saxon Kings are as different from those collected by Glanville as the laws of two different nations." What proof does Hallam adduce in support of this proposition?

12. Did William the Conqueror introduce the Feudal System into England?

Second Year Students.

Equity.—*Examiner, Professor Molyneux.*

1. In what leading particulars does Equity, as administered in our courts, differ from law?

2. How is the equitable jurisdiction classified *in its relation to that of Courts of Common Law?*

3. What are the several subjects, in detail, upon which Courts of Equity exercise jurisdiction?

4. Where equities are equal, as between plaintiff and defendant, what is the course of the court?

5. In what cases does "ignorantia legis" constitute a legitimate element in plaintiff's claim to redress in Courts of Equity?

6. In what cases do Courts of Equity grant relief on the ground of "*mistake*" *in matters of fact?*

7. Why do Courts of Equity administer relief in the case of "lost deeds," notwithstanding that Courts of law grant relief in such cases?

8. In what instance will Courts of Equity deny relief in a suit for revocation of contract, although there has been non-communication of facts?

9. In what cases do the statutes of Elizabeth in England, followed by corresponding acts in Ireland, treat conveyances as fraudulent? and to what extent were conveyances void for fraud before the statutes?

10. If A procure the conveyance of an estate from B by fraud, and afterwards sells the estate, under what state of facts will a Court of Equity decree relief to B as against the purchaser?

11. In cases of *bargains with expectant heirs*, what is the principle upon which Courts of Equity exercise their jurisdiction for or against the purchaser, under the circumstances of each case?

12. Are there any, and what, cases of fraud in which equity denies relief?

13. What is the provision of the Statute of Limitations in relation to cases of concealed fraud?

14. How far does *inadequacy of price* entitle a vendor to relief in equity?

15. When is a settlement considered, in equity, to be a fraud on the husband's marital rights?

16. On what terms alone will a plaintiff obtain relief by having a transaction set aside for fraud?

17. If an estate be sold for a certain sum of money and an annuity for the life of the vendor, and the vendor dies before the receipt of any gale of the annuity, will equity grant his representatives any relief?

18. On what principle do Courts of Equity grant relief under the head of *constructive fraud*, notwithstanding the maxim that "*Fraud will not be presumed?*"

19. What will amount to fraud in a purchaser concealing from the

vendor any advantage to the latter in the bargain of which the former is ignorant?

20. What is the nature of the relief granted by Courts of Equity in the case of a written contract obtained through fraud?

Third Year Students.

Law of Contract.—*Examiner, Professor Molyneux.*

1. What abuses led to the enactments of the statute of frauds in relation to contract? and by what means do its provisions aim at the accomplishment of its object? and how are the exceptions contained in the clauses relating to the sale of goods reconcilable with its spirit?

2. What acts are necessary to constitute a valid deed?

3. What acts, according to the civil law, were sufficient to give the same efficacy to a parol contract as the Common Law of England confers upon a deed?

4. What statutable modification of the provisions of the statute of frauds has been effected in relation to guarantees?

5. What condition on the part of the vendor is implied in an ordinary contract for the sale of lands?

6. Goods ordered verbally from a commercial traveller, and consigned by the vendor to the vendee through a common carrier, whether by sea or land, at whose risk are the goods while in course of transmission?

7. What is the meaning of the expression "general average" in marine commerce?

8. What is the consideration which sustains the action upon a common guarantee?

9. In what instance will an action *not lie* on an undertaking to pay the debt of another, although reduced to writing, and signed by the person sought to be charged?

10. How many kinds of contract, in relation to their evidence, are known to our law? Specify them.

11. State what change in the right of creditors *inter se* is effected by the operation of the Bankrupt Law.

12. What act of a creditor toward his debtor discharges a surety from his illegal liability as such?

13. What redress has the assignee of a chose in action against the debtor, and what parties must be made privy to the proceeding?

14. What is the implied duration of a tenancy from year to year?

15. What is the nature of the contract implied as between the drawer of a bill of exchange and his indorsee?

16. What is a "charter party," and what a "bill of lading"?

17. Why is a warranty given subsequently to a sale invalid?

18. On a sale of grain, under what circumstances is a warranty that it will grow implied?

19. On what principle, and under what circumstances, is a master liable for the price of goods obtained by his servant on the master's credit, but converted to his own use?

20. What is the difference between a general and particular lien?

Dublin: Printed by Alexander Thom, 87 & 88, Abbey-street,
For Her Majesty's Stationery Office.

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, CORK,

TO THE [illegible]t MARCH, 1866;

TOGETHER WITH

APPENDICES A TO L INCLUSIVE.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, CORK,

FOR

THE YEAR ENDING 31ST MARCH, 1866.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

CONTENTS.

	Page
REPORT,	3
APPENDIX:	
A. General Regulations of the College; List of Officers; Programme of Courses for Matriculation and Scholarship; Hours of Lecture; Special Courses for Competitive Examinations and for the Public Service; University Examinations, &c.,	11
B. Selection of Examination Papers used at the Scholarship Examinations,	39
C. Selection of Examination Papers used at the Sessional Examinations,	58
D. List of the Students who obtained Honors or Prizes at the Sessional Examinations held in June, 1865,	88
E. Table giving list of Classes, number of Lectures and of Students attending same,	89
F. Form of Circular from President, and Special Reports from Professors,	90
G. List of University Degrees, Diplomas, and Honors, obtained by Students from Queen's College, Cork, at the Commencements in June and October, 1865. Peel Exhibitions,	100
H. Order of Council, Regulations, and Papers of Questions for the Special Prize Examinations,	101
I. Special Report from Librarian,	106
K. Copies of the several Accounts furnished by the Bursar, showing the Financial position of the College,	107
L. Report of the Vice-President on Discipline, and return of Punishments; Reports of the Deans of Residences of the several Religious Denominations,	108

THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, CORK,

FOR

THE YEAR ENDING 31ST MARCH, 1866.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

In accordance with the requirements of the Act of Parliament, and of the Charters of the Queen's Colleges, I have the honour to submit the following Report of the Progress and Condition of this College for the year ending March 31st, 1866.

1. EXAMINATIONS FOR ENTRANCE—NUMBERS AND CLASSIFICATION OF STUDENTS.

The Entrance Examinations for the Session now current were held in October, 1865, and on subsequent days, as arranged by the College Council. The regulations on the subject are given in the Prospectus for the Session of which a copy is annexed. (Appendix A.)

After those examinations 65 new Students were entered as Matriculated Students to the First Year's Class, as were also 23 Students who had previously matriculated, but who from not having been promoted, or from other causes, resumed the studies of the first year. The total number of Students in that class was, therefore, 88.

In addition to the above, there presented themselves to proceed with the studies of the Senior Years, 135 students who had passed the Sessional Examinations at the close of the Session of 1864–65, the total number of Matriculated Students attending the College during the current Session (1865-66) being 223.

Besides the above 223 Matriculated Students, there entered to attend the lectures of particular professors 12 Non-Matriculated Students, making the total number of Students in attendance in the Second Session, 235.

Those Students are classified according to their collegiate standing in the following Table, which also shows, for sake of comparison, the similar returns for the preceding years.

Courses of Study in order of College standing.		1864–65.	1865–66.
Matriculated Students	Course of First Year,	97	88
	Course of Second Year,	78	59
	Course of Third Year,	36	52
	Course of Fourth Year,	30	19
	Special Courses,	8	5
Total number of Matriculated Students,		249	223
Non-Matriculated Students,		14	12
Total number of Students,		263	235

In regard to Faculties and courses of study for University Diplomas and Degrees, the Classification of Students who attended the College during the current Session (1865–66) was as follows:—

	Matriculated.	Non-Matriculated.	Total.
In the Faculty of Arts,	60	1	61
In the Faculty of Medicine,	114	12	126
In the Faculty of Law,	9	–	9
In the Faculty of Engineering,	45	–	45
In the Faculty of Agriculture,	1	–	1
	229	13	242

The number 242 exceeds the 235 given above as the total number of Students by 7, as so many had entered more than one Faculty to attend lectures in the same Session, as shown in the following Table. Thus there entered—

Faculties.	Matriculated.	Non-Matriculated.	Total.
Arts and Law,	1	–	1
Arts and Medicine,	3	1	4
Medicine and Law,	2	–	2
Total,	6	1	7

The ages of the new Students entered for the Session 1865–66, were as follows:—

15 Years,	4	19 Years,	5	No return,	6
16 Years,	22	20 Years,	2		
17 Years,	13	21 Years and over,	5	Total,	65
18 Years,	8				

Of the total number of Matriculated Students, (223), there were 163 under and 60 over 21 years of age.

2. College Examinations for Scholarships and Sessional Promotion of Students in the Session 1864–65.

The Examination for Scholarships and for Sessional Promotion in the Session 1864-65, were carried on as usual under the direction of the College Council, with the following results.

Of the 7 Senior Scholarships in Arts 6 were awarded.
Of the 30 Junior Scholarships in Arts all were awarded.
Of the 8 Scholarships in Medicine all were awarded.
Of the 3 Scholarships in Law all were awarded.
Of the 5 Scholarships in Civil Engineering 4 were awarded.

The Examinations for those Scholarships were conducted principally by printed papers. The subjects of examination are described in the Prospectus (Appendix A), and the more important papers of questions are annexed, forming Appendix B.

The Examinations for Sessional promotion were held at the close of the Session, with the results shown in the following Table:—

Faculty.	Promoted.	Not Promoted.	Total.
Arts,	32	21	53
Engineering,	23	19	42
Law,	9	6	15
	64	46	110
Fourth Years Arts Students,			10
Faculty of Medicine,			139
Total number of Students,			259

Those examinations were similarly conducted by printed papers, of which a selection is given in Appendix C; and prizes were awarded to those Students who had been specially recommended to the College Council by the Examining Professors. The names of those Students who received Sessional honors and prizes are given in Appendix D.

3. Courses of Instruction.

The particulars of the Classes, the number of lectures delivered by each Professor, and the number of Students attending each class in the Session 1864–65, are given in the Table, Appendix E.; and further details as to the special departments will be found in the Reports of the Professors annexed, forming Appendix F.

4. Queen's University Examinations and Peel Exhibitions.

Those Students who had completed their collegiate courses, were recommended to the Senate of the Queen's University to be examined for their respective Diplomas and Degrees. The names of those Students of Queen's College, Cork, who obtained Degrees

or Diplomas at the University Examinations in June and October, 1865, and also the names of those who obtained University honors at those Examinations, are given in Appendix G.

At the close of the first University Examination in Arts in October, 1865, 8 Students passed, of whom 1 obtained first class, 1 second class, and 1 third class honors, and in the Faculty of Engineering 11 passed, of whom 1 obtained first class, 1 second, and 4 third class honors.

5. Competitive Examinations and Civil Service Appointments. Special College Prize.

At the Examination for the Special Prizes founded by the Council of Queen's College, Cork, for the Session 1864-65, to encourage proficiency in those branches of study embraced in the principal Competitive Examinations for the public service, the first was awarded to Mr. Richardson Evans; the second was not awarded; the third was awarded to Mr. Michael O'Brien.

The regulations of the College Council regarding the Special Prizes, together with the Examination Papers, are given in Appendix H.

At the Examinations held in London, in 1865, the following Students of Queen's College, Cork, obtained appointments in the Civil Service:—

Mr. James Marcel, Indian Civil Service.
Mr. Richardson Evans, do. do.
Mr. Michael O'Brien, Underwritership in China and Japan.
Mr. David J. Walshe, Army Medical Service.

Also, Mr. John Lambert, A.B., formerly student in Queen's College, Cork, has been appointed by the Colonial Secretary, Second Classical Master in the Royal School of Trinidad, and Mr. Thomas Busteed, A.M., formerly student of Queen's College, Cork, has been appointed by the Secretary for India to the office of Judge, at Madras.

6. Library and Museums.

The special Report of the Librarian will be found in Appendix I; and for explanations of the condition and progress of the several Museum departments, reference may be made in Appendix F to the Reports of the Professors of whom those special departments are in charge.

7. Financial Position of the College.

I have the honour to annex copies of the College accounts as furnished by the Bursar, and also of the mode of distribution of the Parliamentary Grant for the year closing 31st March, 1866, forming Appendix K, Nos. 1 and 2; the sum granted by Par-

liament for the year 1865–66 being £1,600, instead of £1,000, the additional £600 being allowed towards replacing objects destroyed in the late fire.

8. Conduct and Discipline of the Students.

During the Session of 1864–65, the conduct of the Students has been perfectly satisfactory, no infringement of discipline deserving the notice of the College Council having occurred; and I have to report the same for the current Session, 1865–66, up to present date, 31st March. The Report of the Vice-President on Discipline, and the Returns of the Deans of Residences, are annexed, forming Appendix L.

With regard to the numerical proportions of the several religious bodies among the newly entered Students, the following Table gives the numbers for the last and the current Sessions:—

Religious Denominations.	1864–65.			1865–66.		
	Matriculated.	Non-Matriculated.	Total.	Matriculated.	Non-Matriculated.	Total.
Roman Catholic,	37	2	39	27	6	33
Established Church,	34	4	38	28	4	32
Presbyterian,	–	–	–	1	–	1
Wesleyan,	3	1	4	2	–	2
Other Minor Denominations,	2	–	2	7	–	7
Totals,	76	7	83	65	10	75

The following Table gives the religious denominations of all the Students now in attendance at Queen's College, Cork (1865–66):—

Religious Denominations.	Matriculated.	Non-Matriculated.	Total.
Roman Catholics,	101	7	108
Established Church,	103	4	107
Wesleyan,	8	1	9
Presbyterian,	4	–	4
Minor Denominations,	7	–	7
Total,	223	12	235

9. Progress of the Queen's College, Cork, as to Numbers of Students, and the proportion of the several Religious Denominations of same, since its first opening in 1849 to present date.

In addition to the information given in the preceding Report of the condition of the College during the last and the current Sessions, I believe it may be found useful to exhibit in a tabular form the numbers of Students who entered the College in each year since its opening; the total numbers who attended in each Session; and the proportions of each religious denomination, as follows:—

No. 1.—TABLE showing the NUMBERS and RELIGIOUS DENOMINATIONS of the NEW STUDENTS who entered Queen's College, Cork, in each Session from its first opening to the present date.

SESSIONS.	Matriculated.	Non-Matriculated.	Totals.	Roman Catholics.	Established Church.	Wesleyans.	Presbyterians.	Other Denominations.	Totals.
1849–50, . .	70	45	115	62	43	7	2	1	115
1850–51, . .	61	38	99	58	32	6	2	1	99
1851–52, . .	36	32	68	36	26	3	2	1	68
1852–53, . .	35	21	56	30	20	3	2	1	56
1853–54, . .	38	25	63	34	23	3	2	1	63
1854–55, . .	41	22	63	38	21	4	–	–	63
1855–56, . .	64	13	77	38	32	5	1	1	77
1856–57, . .	38	25	63	28	27	4	2	2	63
1857–58, . .	33	32*	65	30	28	2	3	2	65
1858–59, . .	44	24	68	31	29	3	3	2	68
1859–60, . .	60	27	87	45	36	2	3	1	87
1860–61, . .	72	30	102	49	46	1	4	2	102
1861–62, . .	89	18	107	47	51	3	3	3	107
1862–63, . .	61	20	81	33	40	3	4	1	81
1863–64, . .	96	19	115	52	47	6	6	4	115
1864–65, . .	76	14	90	42	42	4	–	2	90
1865–66, . .	65	12	77	34	33	2	1	7	77
Totals, .	979	417	1,396	687	576	61	40	32	1,396

* See note to following Table.

No. 2.—TABLE showing the TOTAL NUMBERS and RELIGIOUS DENOMINATIONS of STUDENTS attending the Queen's College, Cork, in each Session from its first opening to the present date.

SESSIONS.	Matriculated.	Non-Matriculated.	Totals.	Roman Catholics.	Established Church.	Wesleyans.	Presbyterians.	Other Denominations.	Totals.
1849–50, . .	70	45	115	62	43	7	2	1	115
1850–51, . .	118	38	156	86	55	10	3	2	156
1851–52, . .	117	32	149	81	57	7	2	2	149
1852–53, . .	109	21	130	68	46	7	3	6	130
1853–54, . .	115	25	140	80	46	10	2	2	140
1854–55, . .	122	22	144	73	60	8	2	1	144
1855–56, . .	149	13	162	83	67	6	3	3	162
1856–57, . .	139	25	164	72	70	11	6	5	164
1857–58, . .	125	32*	157	71	69	7	6	4	157
1858–59, . .	125	24	149	69	64	6	4	6	149
1859–60, . .	144	27	171	85	68	8	5	5	171
1860–61, . .	173	30	203	98	93	8	2	2	203
1861–62, . .	211	18	229	98	111	7	7	6	229
1862–63, . .	219	20	239	96	121	11	8	3	239
1863–64, . .	241	19	260	121	106	12	12	9	260
1864–65, . .	249	14	263	129	114	12	6	2	263
1865–66, . .	223	12	235	108	107	9	4	7	235
Totals, .	2,649	417	3,066	1,480	1,297	146	77	66	3,066

* As the College Statutes do not direct any entry of the Religions of the Non-Matriculated Students, no official record of such was kept until 1857-58. It was known, however, that the relative proportions did not differ from those of the Matriculated Students, and they have been taken as the same for the previous years.

10. PROPORTION OF THE MATRICULATED STUDENTS OF QUEEN'S COLLEGE, CORK, WHO PROCEED TO EXAMINATIONS FOR DEGREES AND DIPLOMAS IN THE QUEEN'S UNIVERSITY, AND THE RELATIVE PROPORTIONS OF THE SEVERAL RELIGIOUS DENOMINATIONS AMONG SAME.

It may be of interest, in reference to the relations of the Queen's University to the Queen's Colleges, to exhibit the Numbers and Religious Denominations of the Students of Queen's College, Cork, who have proceeded to the Examinations, and received the Degrees or Diplomas of the Queen's University. For this purpose it will be sufficient to take the last five years of the University Examinations and the corresponding five years of the College Entrances.

As the course of study for the degree of A.B. occupies three years; that for the degree of M.D., four years; and that of Engineer, also three years, the five years, 1861 to 1865 inclusive, of University Degrees may be taken to represent the five years, 1858 to 1862 inclusive, of the entrances of those persons as Students in Queen's College, Cork. In the University five years, 136 Students of Queen's College, Cork, received Diplomas or Degrees; whilst in the corresponding College period 326 entered as Matriculated Students in that College, of whom, consequently, 41·7 per cent. had fully completed their education and received University Degrees. Of the 326 Students there had been—

Roman Catholics,	143,	or per cent.	43·9
Established Church,	153,	,,	47·0
Other Denominations,	30,	,,	9·1
	326		100·0

And of the 136 Students who received University Degrees there had been—

Roman Catholics,	72,	or per cent.	52·9
Established Church,	45,	,,	33·1
Other Denominations,	19,	,,	14·0
	136		100·0

Hence it is evident that a larger proportion of the Roman Catholic Students, and also of the Dissenting Students, proceed to and receive the University Degrees than of the Students belonging to the Established Church, the comparative proportions being as follows: that of the Students who entered there proceeded to Degrees as follows:—

Of 143 Roman Catholics, there obtained Degrees, 72, or 50·3 per cent.

Of 153 members of the Established Church, 45, or 29·4 obtained Degrees.

Of 30 members of minor Religious Denominations, 19 obtained Degrees, or 63·3 per cent.

The smaller proportion of the Students of the Established

Church who proceed to Degrees is easily understood from the fact that those belonging to that communion who aspire to a University career, and many of whom may wish to become clergymen, are naturally drawn away from the Provincial College to the wider and higher field which is presented to their abilities and energies through the influence and the endowments of Trinity College, Dublin.

A similar result would be found to follow from an Examination of the Numbers and Religious Denominations of the Students who pass the first University Examination, or "little go," but that the Students of the Established Church would bear a somewhat larger proportion, as 36·6 per cent. of them pass the "little go," whilst only 29·4 per cent. proceed to take out a Degree; otherwise the results are substantially as those given above.

It is hence evident that not only is the Queen's College, Cork, largely availed of by the Roman Catholics of the south of Ireland as a place of superior education, as is shown by the proportion of Students at Entrance, but that the proportion of Roman Catholics is kept up continuously throughout the entire College course, and that a corresponding proportion proceed finally to take an University Degree—a proportion (50·3 per cent.) which I believe should be found satisfactory, when considered with reference to corresponding returns from the other universities, and with the special circumstances under which the Queen's University has been placed ever since its foundation.

Signed,

ROBERT KANE,

President of Queen's College, Cork.

Queen's College, Cork,
5th April, 1866.

APPENDIX.

APPENDIX A.

Appendix A.

General Regulations of College, &c.

GENERAL REGULATIONS of the COLLEGE.—LIST of OFFICERS.—PROGRAMME of COURSES for MATRICULATION and SCHOLARSHIP.—HOURS of LECTURE.—SPECIAL COURSES for COMPETITIVE EXAMINATIONS and the PUBLIC SERVICE.—UNIVERSITY EXAMINATIONS, &c.

QUEEN'S UNIVERSITY IN IRELAND—QUEEN'S COLLEGE, CORK.

Faculties of Arts, Medicine, and Law.—Session 1865–66.

President—SIR ROBERT KANE, F.R.S., M.R.I.A.

Vice-President—JOHN RYALL, LL.D.

Professors.

The Greek Language	JOHN RYALL, LL.D.
The Latin Language	BUNNELL LEWIS, A.M., F.S.A.
Mathematics	ROBERT ROMER, B.A.
Natural Philosophy	J. ENGLAND, A.M.
History and English Literature	WILLIAM RUSHTON, A.M.
Logic and Metaphysics	GEORGE SIDNEY READ, A.M.
Chemistry	JOHN BLYTH, M.D.
Natural History	JOSEPH REAY GREENE, A.B.
Geology and Mineralogy	ROBERT HARKNESS, F.R.S.S.I. & E., F.G.S.
Modern Languages	RAYMOND DE VERICOUR, D. ES. L.
Jurisprudence and Political Economy	RICHARD HORNER MILLS, A.M.
English Law	MICHAEL BARRY, M.R.I.A.
Anatomy and Physiology	J. HENRY CORBETT, M.D., L.R.C.S.I.
Medicine	DENIS C. O'CONNOR, A.B., M.D.
Surgery	WILLIAM K. TANNER, M.D.
Materia Medica	PURCELL O'LEARY, B. ES. L., A.M., M.D., F.B.S.
Midwifery	JOSHUA R. HARVEY, A.B., M.D.
Engineering	ALEXANDER JACK, A.M.
Celtic Languages	OWEN CONNELLAN, Esq.
Agriculture	EDMUND MURPHY, A.B.

Officers.

Registrar	ROBERT JOHN KENNY, Esq.
Bursar	EDWARD M. FITZGERALD, Esq.
Librarian	MATTHIAS O'KEEFFE, A.M., M.D.

The College Session, 1865–66.

The *First Term* will commence on the 17th of October, 1865, and end on the 23rd of December.

The *Second Term* will commence on the 8th of January, 1866, and end on the 24th of March.*

The *Third Term* will commence on the 9th of April, 1866, and end with the Session, on the 9th of June.

* The Easter recess for the Medical Faculty will commence on the Tuesday before Easter, and end on Easter Monday.

Appendix A.

General Regulations of College, &c.

Subjects of the Matriculation Examinations.

For the Faculties of Arts, Medicine, and Law.

Greek:

Grammar.

Any one of the following Authors which the Candidate may select:—

Homer—Iliad, Books I. and II.
Xenophon—Anabasis, Books I. and II.
Lucian—Walker's Selections.

Latin:

Any one of the following Authors which the Candidate may select:—

Virgil—Æneid, Books I. and II.
Sallust—Conspiracy of Catiline.
Cæsar—Gallic War, Book I.

English:

Grammar—

(1.) The principles of Etymology and Orthography.
(2.) The leading Rules of Syntax.

Composition, and writing from dictation.
Outlines of Grecian History to the death of Alexander the Great.
Outlines of Roman History to the accession of Augustus.
Outlines of Ancient and Modern Geography.

Mathematics:

Arithmetic—Principles of Notation. Vulgar and Decimal Fractions. Definition of the terms, Ratio and Proportion. The Rule of Proportion, with its commercial applications, including Simple Interest.
Algebra—Explanation of the signs and meaning of an Index. Calculation of the values of Algebraical Expressions, when particular values are given to the letters which they involve.
Euclid—Book I., with the definitions and axioms.

For the Department of Civil Engineering.

The outlines of Modern Geography; Grammar.
Mathematics—Arithmetic, Principles of Notation, Vulgar and Decimal Fractions, with the reasons of the different rules. Rule of Proportion, with its commercial applications; Extraction of the Square Root, both of whole numbers and decimals.
Algebra—Explanation of the signs and meaning of an Index, calculation of the value of Algebraic expressions, when particular values are given to the letters which they involve.
Euclid—Books I., II., III., IV., and VI., with the definitions of Book V.

For the Department of Agriculture.

The English Language:

Grammar and Composition.

Mathematics:

First Four Rules of Arithmetic. Proportion. Vulgar and Decimal Fractions. Extraction of the Square Root.

Modern Geography.

Matriculated Students.

Persons intending to become *Matriculated* Students of the College, in any of the Faculties or Departments of Faculty, are required to pass the Matriculation Examination, whereby they are declared competent to pursue the course of study prescribed to Students in that Faculty or Department of Faculty, and, on completing this course, are entitled to become Candidates for the Degrees or Diplomas granted by the Queen's University in Ireland.

The Examination for the Matriculation *of Students in the several Faculties*

and Departments of Faculty, will commence at Ten o'clock, on Tuesday, the 17th of October, 1865.

Candidates for Matriculation are required to forward their names to the Registrar of the College, and to state the Faculty or Department of Faculty for which they propose to Matriculate, at least *three days* before the commencement of Matriculation Examinations.

Each Candidate, before being admitted to the Matriculation Examination, is required to pay the Bursar of the College the *College Fees* for the year, amounting to 10*s.* for each Faculty or Department of Faculty. These fees will be returned to such Candidates as may fail in passing the Matriculation Examination.

After passing the Matriculation Examination, and before receiving a Certificate thereof, or joining the several Classes, each Student is required to pay the Bursar of the College the whole of the *Class Fees* for the Session.

The Lectures in Arts, Engineering, and Agriculture commence October 23rd, and those in Medicine, November 2nd.

One moiety of the *Class Fees* for the Session is returned to Junior Scholars; but this exemption is not to extend to the Fees of any Honor Lectures attended by them out of the order of studies laid down in the Curriculum.

In order to encourage the study of French by Candidates for Matriculation, a prize of £5 will be offered for competition in that language, to such Students as, at the opening of Session 1865–66, shall have passed the Matriculation Examination for the first time.

Matriculated Students are required to wear an academic dress.

In May and June are held General Examinations in the subjects lectured upon during the Session; and a sum of One Hundred Pounds is awarded in Prizes to the most distinguished Students.

Students who have pursued part of their studies in any one of the Queen's Colleges, or in any University capable of granting Degrees in the several Faculties of Arts, Law, and Medicine, are permitted, on passing the prescribed Examinations, to take corresponding rank in this College, and also to compete for Scholarships of the corresponding year; providing they shall not hold at the same time a Scholarship or other office of emolument in any University or College of a University.

University Prizes.

Two Prizes for English Prose Composition, and two for Geometry, have been founded in each of the Queen's Colleges, to be awarded annually at entrance—First Prize for English Prose Composition, £3 worth of Books; Second ditto, £2 worth of Books. First Prize for Geometry,* £3 worth of Books; Second ditto, £2 worth of Books.

Non-Matriculated Students.

Gentlemen who do not propose, or are not prepared, to Matriculate, but who wish to avail themselves, in other respects, of the advantages offered by the College, are permitted to attend the Professors' Lectures, without passing any of the Examinations, on paying to the Bursar the regulated Class Fees, amounting generally to £2 for each course, and College Fee of 5*s.* for the Session; but they cannot become Candidates for Scholarships or Prizes, or enjoy the other privileges of Matriculated Students. They are, however, entitled to the use of the Library, on subscribing the Library Regulations, and paying a fee of 15*s.* for each Session; and the Professors are authorized to recommend to the Council to grant Certificates of Honor to the most distinguished of them in their respective Classes.

East India Civil Service.

The attention of parents and guardians is directed to the new arrangements for the East India Civil Service; according to which Writerships are open to competition at Examinations prescribed by the Board of Control. The course

* 1st, 2nd, 3rd, 4th, and 6th Books of Euclid, with Deductions, together with the Definitions of the 5th Book.

Appendix A. — General Regulations of College, &c.

of Lectures in the Queen's College, Cork, are well adapted to prepare Candidates for this Examination, which includes the following branches of knowledge, their relative importance being indicated by the annexed scale of marks.

English Language and Literature:

Composition,	500
English Literature and History, including that of the Laws and Constitution,	1,000
	1,500
Language, Literature, and History of Greece,	750
" " " Rome,	750
" " " France,	375
" " " Germany,	375
" " " Italy,	375
Mathematics, pure and mixed,	1,250
Natural Sciences—that is, Chemistry, Electricity, and Magnetism, Natural History, Geology, and Mineralogy,	500
*** No candidate will be allowed to be examined in more than three of the branches of knowledge included under this head, and the total (500) may be obtained by adequate proficiency in any three.	
Moral Sciences—that is, Logic, Mental, and Moral Philosophy,	500
Sanscrit Language and Literature,	375
Arabic Language and Literature,	375
	7,125

Library and Museum.

The Library and Museum are open, under certain regulations, to all the Students.

Faculty of Arts.

Lectures.

The Lectures of the several Professors in this Faculty will commence on Monday, the 23rd of October, 1865, except those on the "English Language" and on "Logic," which will not be delivered until the commencement of the Second Term.

Scholarships.

The Examinations for Scholarships will commence on Thursday, the 19th of October.* The College Council are empowered to confer, at these Examinations, Eight Senior Scholarships of the value of £40 each, and Forty-six Junior Scholarships, viz.:—Fifteen in Literature, and Fifteen in Science, of the value of £24 each; Eight in Medicine, value £25 each; Three in Law, and Five in Civil Engineering, of the value of £20 each—and if competent Candidates present themselves, these Scholarships will be awarded to the most deserving. The Scholarships are tenable for one year only, except the Second Year's Scholarships in Arts, which are tenable for two years, on condition that the Scholar shall pass with Honors the First University Examination, and shall attend during the third Session at least two of the Courses of Lectures prescribed by the University for attendance during that Session as a qualification for the Degree of B.A., and shall pass the Sessional Examinations in these subjects; but the Scholars of each year are, at its expiration, eligible to become Candidates for the Scholarships of the succeeding year. A Scholarship, however, of the same year in the same Faculty, cannot be held twice by the same Student.

The Scholarships of the first year are open to all Students of the respective Faculties who have passed the Matriculation Examination. Those of the second

* See Programme of Scholarship Examinations, page 15.

and fourth years in Arts, and those of second, third, and fourth years in Medicine and Law, and of the second and third in Engineering, are open to all Students who have passed the Examinations, and attended the Lectures prescribed in the preceding part of their Course of Study.

If any Student be placed, at the Examination for Junior Literary and Science Scholarships, first on both the lists of Candidates, he will be entitled to a Scholarship of each Division; but in no other case will the same Student be permitted to hold two Scholarships.

No Student is entitled to become a Candidate for a Scholarship until he shall have paid the COLLEGE AND CLASS *Fees for the current Session. To be paid on or before the day previous to the Examination.*

The Scholarship endowment is paid by Quarterly Instalments, and its tenure is dependent on the Scholar's performance (so far as required by the Council) of the duties prescribed by the Statutes. These duties are to take charge of the Class-Rolls, to Register the attendance of the Students, to assist the Professors, &c.

If the Scholar be not obedient to the orders of the Council, be removed from the College, or, by non-attendance on Lectures, fail to keep the terms required for promotion, he forfeits his Scholarship.

The Scholar in the Faculty of Medicine must attend during the year of his appointment the classes recommended for his year of study in the order of the following Curriculum:—

FIRST YEAR.	THIRD YEAR.
Anatomy and Physiology.	Surgery.
Chemistry.	Midwifery.
French or German.	Practical Anatomy.
Natural Philosophy.	
Zoology and Botany.	
SECOND YEAR.	**FOURTH YEAR.**
Anatomy and Physiology.	Practice of Medicine.
Materia Medica.	Medical Jurisprudence.
Practical Anatomy.	
Practical Chemistry.	

JUNIOR SCHOLARSHIPS.

Subjects of Examination for Literary Scholarships of the First Year.

The Greek Language:

Homer—The Iliad. Books I., II., III., IV., V., and VI.
Euripides—The Medea.
Herodotus—The Second Book.
Xenophon—The Anabasis, Books I., II., III.
Lucian—Walker's Selections.
Greek Prose—Re-translation of short sentences from English into Greek.

The Latin Language:

Virgil—First Six Books of the Æneid, the Georgics.
Horace—First Two Books of the Odes, the Satires, and the Epistles, Books I., II.
Cicero—De Senectute, De Amicitiâ.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Cæsar—The Gallic War, Books V., VI.
Latin Prose—Re-translation from English into Latin, of portions of Cicero.
N.B.—The Examination in Greek and Latin will be conducted partly *vivâ voce*, and partly by printed questions.

The English Language:

Original Essays on subjects proposed by the Examiner. The Principles of English Grammar. The Laws of Etymology and Orthography. Craik's Outlines of the History of the English Language.

History and Geography:

Grecian History to the Death of Alexander the Great.
Roman History to the Accession of Augustus.
Outlines of Ancient and Modern Geography.

Appendix A.

General Regulations of College, &c.

Subjects of Examination for Literary Scholarships of the Second and Third Years.

The Greek Language:

Homer—Iliad, Odessy, Books XII. to XVIII. inclusive.
Herodotus—Book VII.
Euripides—Ion.
Demosthenes—Olynthiac Orations.
Composition in prose and verse. Greek Literature and History. Ancient Geography.

The Latin Language:

Virgil—Eclogues and Æneid.
Horace.
Terence—Andria.
Cicero—Tusculan Disputations.
De Oratore.
Juvenal—Satires, I., III., VIII., X., XIII., XIV.
Livy—Book IV.
Tacitus—Histories, Book I.

Composition in prose and verse.

The English Language:

Craik's Outliness of the History of the English Language.
History of English Literature. Text Book, Chambers' Cyclopædia of English Literature. Vol. I., pp. 85–145.
Shakspeare's Julius Cæsar.
,, Macbeth.

The French Language:

Moliere—L'Avare; Le Misanthrope.
Lafontaine—Fables.
Demogeot—Histoire de la Littérature Français.
Translation from English into French.

Subjects of Examination for Science Scholarships of the First Year.

Arithmetic:
Mensuration of rectilineal figures and of the circle.

Algebra:
The Solution of Simple and Quadratic Equations with one or more unknown quantities. Easy questions in the application of Algebra to Geometry. Arithmetical and Geometrical Progressions. The nature of Logarithms.

Euclid:
Books I., II., III., and IV., with deductions.

Trigonometry:
Definitions of the Sine, Tangent, &c., of an angle. The easier analytical formulæ. The Solution of Plane Triangles, with demonstrations. Nature and Use of the Tables.

Subjects of Examination for Science Scholarships of the Second and Third Years.

The Higher Arithmetic, with Mensuration:

Algebra:
The Solution of Equations with one or more unknown quantities. Elimination. Theory and use of Logarithms. Theory of Equations. Binomial and Exponential Theorems. Compound Interest and Annuities.

Geometry:
Euclid, Books I., II., III., IV., VI., with deductions. Analytical Geometry.

Trigonometry:
The Solution of Plane Triangles, with demonstrations of the formulæ. Theorems relating to single arcs. Theorems relating to the sums and differences of arcs. Application to heights and distances.

Subjects of Examination for Engineering Scholarships of the First Year.

Arithmetic:
Mensuration:
Algebra:
Euclid:
Trigonometry:
} As for Science Scholarships of the First Year.

Subjects of Examination for Engineering Scholarships of the Second Year.

Mathematics:

The same as for Science Scholarships of the Second Year, except that Spherical Trigonometry will be substituted for Analytical Geometry.

French:

Demogeot—Histoire de la Littérature Française.
Translation from English into French.

Chemistry:

Laws of Combination and Affinity—Preparation and Properties of the Chief Organic Substances—Metallurgic Operations—Mortars and Cements.

Geometrical Drawing:

Descriptive Geometry—Orthographic Projection—Isometric Projection—Perspective.

Subjects of Examination for Engineering Scholarships of the Third Year.

Mathematics:

Algebra—Theory of Equations and Methods of Approximation. Elimination. Summation of Series. Binomial and Exponential Theorems. Scales of Notation, &c.

Trigonometry—Plane and Spherical, with Astronomical applications.

Analytical Geometry, and Geometrical Conic Sections.

Differential Calculus—Involving demonstrations of the rules for differentiating Algebraic, Circular, and Exponential Functions, founded upon a clear statement of the nature of Limits and Definition of a Differential coefficient. Taylor's and Maclaurin's Theorems. Maxima and Minima. Criteria of the same, with proofs, Equation of Tangent, Normal, Evolute, &c.

Integral Calculus, including more particularly Rational Fractions, Binomial Differentials, Areas of Curves, Rectification of Curves, Cubature of Solids of Revolution.

Natural Philosophy:

Newth's Mechanics.
Ganòt—Traite de Physique—Books VI., VII., VIII., IX.

Geology and Mineralogy:

Civil Engineering:

Instruments used by the Civil Engineer. Their Adjustments and use. Surveying. Levelling.

Senior Scholarships.

Seven Senior Scholarships are appropriated to the Faculty of Arts, and one to that of Law, and will be conferred, by examination, on the most distinguished Students who shall have proceeded to the Degree of A.B., being Graduates in the Queen's University, of less than two years' standing, for proficiency in Special Departments of Study, viz.:—

One in Ancient Languages, Literature, and History of Ancient Greece and Rome.

One to Modern Languages, Literature, and History, viz., English Language, Literature, and Composition; European, and English History; the French Language, with German or Italian.

One to Mental and Social Science, viz., Logic, Metaphysics, and Political Economy.

One to Mathematics, viz., Pure Mathematics.

One to Natural Philosophy, viz., Experimental Physics, and Mixed Mathematics.

One to Chemistry, viz., Theoretical and Practical Chemistry.

One to Natural History, viz., Zoology and Botany, Geology, and Physical Geography.

One to Law.

Appendix A. General Regulations of College, &c.

Subjects of Examination for the Senior Scholarships in the Greek and Latin Languages, and Ancient History.

The Greek Language:

Æschylus—Agamemnon.
Together with the Subjects for the Honor Examination at the University.
Composition in Attic Prose and Iambic Verse.
Greek Literature and History.

The Latin Language:

Virgil.
Horace.
Lucretius—Books I., II.
Ovid—Fasti. Book I.
Persius.
Plautus—Captivei & Miles Gloriosus.
Terence—Phormio and Andria.
Cicero—De Oratore.
Tusculan Disputations.
Ad Atticum, Books I., II.
Actiones Verrinæ.
Livy—Books IV. and XXII.
Tacitus—The Annals, Books I. to IV., inclusive.

Composition in Prose and Verse.

For Senior Scholarships in Modern Languages and History.

The French Language:

Lavallée—Histoire des Français.
Histoire de la Littérature Française, par Demogeot ou Nisard.

The German Language:

National Literature, von A. F. Vilmar.
Schiller's Maria Stuart.
Goethe's Iphigenie.

Translation from English into one of the above Languages.

English:

Language, Literature, and Composition.
History—Hallam's Middle Ages.
Chap. II., Part 1, The Feudal System.
Chap. VIII., Part 1, The Anglo-Saxon Constitution.
Chap. VIII., Part 2, The Anglo-Norman Constitution.
Chap. VIII., Part 3, The English Constitution.

The Italian Language:

Tasso—Gerusalemme Liberata—first five Cantos.
Dante's Inferno—Italian Literature, published by Messrs. Chambers.

Translation from English into French, German, or Italian.

For the Senior Scholarship in Mathematics.

The subjects of previous Examinations (for which see page 16), with the following additions:—

Analytical Geometry of Three Dimensions.
Differential Equations.

For the Senior Scholarship in Natural Philosophy.

Duhamel—Mécanique.
Brinkley—Elements of Astronomy, including the Appendix.
Lloyd—Lectures on Wave Theory of Light.
Ganot—Traite de Physique.

For the Senior Scholarship in Mental and Social Sciences.

The subjects discussed in the Lectures of the Professors, with the following additions:—

Metaphysics and Logic:

Sir William Hamilton's Philosophical Essays and Notes on Reid.
Mill—System of Logic, Book III. to the end of Volume I.

Political Economy:

Principles of Political Economy, by John Stuart Mill.
Taxation and Funding, by M'Culloch—third edition, 1863.

The value attached to the subjects will be in the following proportions, viz.:—

Metaphysics and Logic,	60
Political Economy,	40

For the Senior Scholarship in Chemistry.

Chemical Physics (in Miller's Chemistry).

Inorganic Chemistry:

General principles of Chemical Philosophy. Crystallography. Chemistry of the Metals. Constitution of Salts. Metallurgy.

Organic Chemistry:

Ultimate analysis of Organic Bodies. Empirical and Rational formulæ. Determination of the density of Vapours. Law of Substitution. Homologous Series. Chemical Types. Gerhardt's Views. Preparation and Properties of the Alcohol Series and their Derivatives. Cyanogen, its Compounds and Derivatives. Organic Basis of Artificial Origin.

Practical Chemistry:

The Analysis of Mixtures, containing two or more Acids and Bases.

For the Senior Scholarship in Natural Science.

The Lectures of the Professors.
Huxley—Elements of Comparative Anatomy.
Mill's Logic, Book IV.
Lyell's Elements and Principles.

---

1. Course for the Degree of Bachelor of Arts.*

Candidates for the Degree of Bachelor of Arts are required—

1. To have been admitted Matriculated Students of one of the Colleges of the Queen's University in the Faculty of Arts.
2. To have subsequently studied in one of the Colleges of the Queen's University the Course herein prescribed.
3. To have passed the University Examinations herein prescribed.

The Course for the Degree of Bachelor of Arts shall extend over three Sessions, and shall comprise attendance on the following curriculum:—

FIRST SESSION.

English (One Term).
Greek.
Latin.
A Modern Continental Language.
Mathematics (First Course).

SECOND SESSION.

Logic (One Term).
Natural Philosophy.

Along with any two of the following:—

Greek (Second Course).
Latin (Second Course).
Modern Continental Languages (Second Course).
Mathematics (Second Course).

THIRD SESSION.

English Language and Literature.
Metaphysics, or History, or Political Economy (Two Terms).
Chemistry.
Zoology, or Botany.

Attendance on these Courses shall, in all cases, be understood to include passing such examinations as may be appointed by the College Council, and the catechetical parts of the Courses of Lectures.

Candidates for the Degree of Bachelor of Arts shall reside at their respective Colleges during at least the first two terms of each Session, but may be exempted from residence during the third term by a special grace of the College Council.

Third year's Students may substitute attendance on one or on two Courses of Honor Lectures, for a like number of the Courses above set down for study in the third Session.

* His Royal Highness the Commander-in-Chief has approved of Graduates of the Queen's University being in future exempted from the usual Examination for direct Commissions; and also of the First University Examination being accepted in lieu of that for the Royal Military College, Sandhurst.

Appendix A.

General Regulations of College, &c.

Candidates for the Degree of Bachelor in Arts shall pass two University Examinations—a Preliminary and a Degree Examination.

The Course for the Preliminary Examination shall include Greek, Latin, a Modern Continental Language, and Mathematical Science. Students who have completed their second Session must pass this Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

Candidates who have completed the Undergraduate Course, may offer themselves at the Degree Examination for graduation either with Honors or without Honors.

If they seek to graduate with Honors, they may select for their Examination any one of the following groups:—

Greek and Latin.
Modern Continental Languages.
Mathematical Science.
Experimental Science.
Natural Science.

Or Logic, with any two of the following:—

English Language and Literature.
Metaphysics.
History.
Political Economy.

Candidates who seek the Degree without Honors, may select for their Examination any group of the subjects from the following lists, provided the sum of the numbers attached in this list to the selected subjects be at least four:—

English Language and Literature,	2	Latin,	1
Mathematical Science,	2	Each Modern Continental Language,	1
Experimental Physics,	2	Logic,	1
Chemistry,	2	Metaphysics,	1
Zoology,	1	History,	1
Botany,	1	Political Economy,	1
Greek,	1		

English Composition will form a part of all University Examinations.

2. Course for the Degree of Master in Arts.

Bachelors in Arts of one year's standing, may offer themselves for Examination for the Degree of Master in Arts, and may select for their Examination any one of the following groups:—

Greek and Latin.
Modern Continental Languages.
Mathematical Science.
Experimental Science.
Natural Science.

Or any three of the following:—

English Language and Literature.
Metaphysics.
History.
Political Economy.
Logic.

This Ordinance supersedes former Ordinances prescribing the curriculum for the Degree of Master in Arts.

3. Course for the Diploma of Licentiate in Arts.

A Diploma conferring the title of Licentiate in Arts of the Queen's University in Ireland, shall be granted to Candidates who comply with the following regulations:—

Candidates for this Diploma are required—

1. To have Matriculated in one of the Colleges of the Queen's University.
2. To have pursued in one of the Colleges of the Queen's University the Course herein prescribed.
3. To have passed the University Examination herein prescribed.

The Course for the Diploma of Licentiate in Arts shall extend over two Sessions, and shall comprise attendance on the following curriculum:—

FIRST SESSION.

Two Languages, of which one may be English.
Mathematics.
Another Course on any subject in the annexed list.

SECOND SESSION.

Greek, Latin, or a Modern Continental Language.
Logic (One Term).
Natural Philosophy.
And two other Courses on subjects in the annexed list.

If any of the Courses, except that on Logic, extend over one Term only, some other Course from the annexed list must be attended as a supplement to it, but not necessarily in the same Session.

Credit will not be given for attending the same Course of Lectures a second time.

Attendance on the Courses shall, in all cases, be understood to include passing such Examinations as the College Council shall appoint, and the catechetical parts of the Courses of Lectures.

Candidates for the Diploma of Licentiate in Arts shall reside at their respective Colleges during at least the first two terms of each Session.

After having completed the above curriculum, Candidates for the Diploma shall pass a University Examination in Greek, Latin, or a Modern Continental Language; in Mathematical Science; and in two other subjects selected from the annexed list, viz.:—

The Mathematical Sciences.
The Experimental Sciences.
The Natural Sciences.
Geometrical Drawing.
Mensuration, Levelling, and Mapping.
Anatomy and Physiology.
English Language and Literature.
The Modern Continental Languages.
Greek.
Latin.
Logic.
Metaphysics.
History.
Political Economy.

English Composition will form a part of all University Examinations.

Licentiates in Arts who may desire to proceed to the Degree of Bachelor in Arts, may enter directly on the second Session in the Course for this Degree, provided they attend in it, instead of the usual curriculum, all the Courses prescribed for the first two years which they shall not have already attended in the curriculum for the Diploma of Licentiate.*

University Prizes.

University Exhibitions in the Faculty of Arts.

Three Exhibitions of £20 a year for three years, three Exhibitions of £15 a year for three years, and two Exhibitions of £10 a year for three years, will be competed for annually in the Faculty of Arts. The three £20 Exhibitions will be awarded to the Candidates who stand foremost in order of merit from each College, at the first University Examination in Arts; and the three £15 Exhibitions to the Candidates who stand second in order of merit from each College: provided that their names appear in the First Class of the Division List at that Examination. Of the two £10 Exhibitions, one will be awarded to the best answerer in Mathematical Science, and the other to the best answerer

* Note.—Degrees in Arts, conferred by the Queen's University in Ireland, are recognised by the University of Durham, by St. Bee's College, Whitehaven, and by St. Aidan's College, Birkenhead, in the case of Theological Students preparing for Holy Orders in the Established Church.

Appendix A.

General Regulations of College, &c.

in the Ancient Classics, at the first University Examination. The £10 Exhibitions are open to the competition of Candidates from all the Colleges, and may be held along with one of the larger Exhibitions.

Each Candidate will be deemed a Student of that College in which he shall have attended the Lectures of the second Session; and no Student will be admitted to the competition who shall have allowed more than one academic year to intervene between the time that he entered upon the studies of the second Session and the time of competition.

The first instalment of each Exhibition will be paid at the time of competition; the second when the Exhibitioner takes the Degree of B.A. in the Queen's University, provided he graduate with honors, and within two academic years; and the third when he takes the Degree of M.A. in the Queen's University, provided he obtain it within three academic years from the time of competition.

University Prizes in Composition, open to the Competition of Graduates and Undergraduates.

Two Prizes for English Prose Composition, one of £10 worth of Books, and the other of £5 worth of Books, have been founded, and are open to the competition of all members of the University who shall not have been graduates for more than three years at the time of competition, and who shall not have already twice obtained one or other of these Prizes.

University Prizes in Composition, open to the Competition of all Undergraduates.

Two Prizes in Composition, one for English Prose, the other for Greek or Latin Prose, and each consisting of £5 worth of Books, have been founded, and are open to the competition of all undergraduates, provided that neither the English nor the Classical Prize be awarded oftener than twice to any Student.

DIPLOMA IN ENGINEERING.

Each Candidate for the Diploma in Civil Engineering is required—

1. To have been admitted a Matriculated Student of the Queen's University in the Department of Civil Engineering.
2. To have studied in the Colleges of the Queen's University the Course herein prescribed.
3. To have passed the University Examinations herein prescribed.

The Course for the Diploma in Civil Engineering shall usually extend over Three Sessions, and shall comprise attendance on the following curriculum:—

FIRST SESSION.

Mathematics (First Course).
Chemistry.
Modern Languages.
Geometrical Drawing.
Office Work.
Mineralogy, Geology, and Physical Geography.

SECOND SESSION.

Mathematics (Second Course).
Experimental Physics.
Civil Engineering.
Office Work.
Field Work.

THIRD SESSION.

Natural Philosophy, applied.
Mathematical Physics.
Civil and Mechanical Engineering.
Office Work.
Field Work.
Engineering Excursions.

Attendance on these Courses shall in all cases be understood to include passing such Examinations as may be appointed by the College Council, as well as the catechetical parts of the Courses of the Lecture.

Engineering Students shall reside at their respective Colleges during at least the first two Terms of each Session, and can be exempted from residence during the third Term also, only by a special grace of the College Council.

The study of the Engineering Curriculum may be extended over more than three Sessions, on the recommendation of the College Council, and under such regulations as the Council shall impose. Some relaxation of the order in which the subjects shall be studied will also be admitted, on the recommendation of the Council.

Candidates will, on the special recommendation of the College Council, be admitted to the Diploma after two years' residence instead of three, if their previous acquaintance with a sufficient group of the subjects above set down for study in the First and Second Session is deemed by the Council satisfactory. In such cases the Certificate of the Council will be accepted in lieu of attendances upon these Courses, but will not exempt Candidates from the University Examinations in them.

In order to obtain this Certificate, Students must have attended previously at least one Session in Arts, or one year in an Engineer's office. On making application to the Council, such Students will be allowed to present themselves, at the time of Matriculation, for examination in the subjects of any four of the eight Courses of Lectures of the first two years. On passing this Examination, they will be allowed to take rank at once as Students of the second year, and will then be required to attend those other four Courses of Lectures only, in the subjects of which they have not passed; but they will not be eligible for the Scholarship of that year.

The application to be admitted to this Examination must be lodged with the Registrar before the first day of the Session, and must state what are the four subjects in which the Students propose to offer themselves for Examination, and must be accompanied by a Certificate of the required attendance of one or more years in Arts or an Engineer's Office.

On passing the Sessional Examinations in the subjects of these four Courses of Lectures which they shall have attended as Students of the second year, they will be promoted to the rank of Students of the third year; and, on completing the regular Course of that year, will be furnished with the Certificate required by the Senate of the University.

The University Examinations shall extend to all the subjects of the above Curriculum. French will, in all cases, be required.

Candidates must present themselves before the close of their Collegiate Course for Examination in the following subjects, viz.:—Mathematics (*First Course*); Experimental Physics; Modern Languages; Geometrical Drawing (including Orthographic projection, Isometric projection, Descriptive Geometry, and Linear Perspective); Mathematics (*Second Course*); Mensuration, Levelling, and Mapping.

The final Examination shall extend to all the subjects of the Engineering Course, in which the Candidate shall not have previously passed. English Composition will form a part of each University Examination.

This Ordinance shall take effect from the first day of January, 1860; Students who shall have entered the Engineering Schools of the Colleges of Queen's University previously, may proceed either under the present Ordinance, or under that hitherto in force.

Exhibitions in the School of Engineering.

Two Exhibitions, one of £20 a year for two years, and the other of £15 a year for two years, will be competed for annually in the School of Engineering. These Exhibitions will be awarded at the first University Examination in Engineering: the £20 Exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated, and the £15 Exhibition to the Candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the Division List at that Examination.

Each Candidate will be deemed a Student of that College in which he shall have attended the Lectures of the second Session; and no Student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

Appendix A. — General Regulations of College, &c.

The first instalment of each Exhibition will be paid at the time of competition; the other when the Exhibitioner takes the Diploma in Engineering of the Queen's University, provided that he takes honors with it, and obtain it within two academic years from the time of competition.

Faculty of Medicine.

Lectures, &c.

The Medical Session will be opened on Thursday, 2nd of November, 1865, and the Courses of Lectures will commence as under:—

Anatomy and Physiology—Thursday, 2nd November, at One o'clock, to be continued daily, except on Saturdays, at the same hour.

Practice of Medicine—Friday, 3rd November, at Three o'clock, to be continued on Mondays, Wednesdays, and Fridays, at the same hour.

Practice of Surgery—Friday, 3rd November, at Two o'clock, to be continued on Mondays, Wednesdays, and Fridays, at the same hour.

Materia Medica—Thursday, 2nd November, at Three o'clock, to be continued on Tuesdays and Thursdays, at the same hour; and on Saturdays, at Twelve o'clock.

Medical Jurisprudence—Thursday, 2nd November, at Twelve o'clock, to be continued on Tuesdays, Thursdays, and Fridays, at the same hour.

Midwifery—Thursday, 2nd November, at Four o'clock, to be continued on Mondays, Wednesdays, and Fridays, at the same hour.

The Course of Practical Anatomy will be conducted by the Professor of Anatomy and Physiology, assisted by Dr. Shinkwin and Dr. H. M. Jones, Demonstrators.

The Anatomical Demonstrations will commence on 2nd November, and be continued daily at Twelve o'clock, except Saturdays.

Chemistry—Monday, Wednesday, and Friday.

Practical Chemistry—Monday, Tuesday, Wednesday, Thursday, and Friday.

Zoology and Botany—Monday, Wednesday, and Friday.

Natural Philosophy—Tuesday and Thursday.

Modern Languages—Monday, Wednesday, and Friday.

Subjects of Examination for Medical Scholarships of the First Year.

The Scholarships of the First year in the Faculty of Medicine will be awarded thus:—One to the Candidate who shall have most distinguished himself at the Examination in the course prescribed for Science Scholarships of the First year in Arts, and one to the Candidate who shall have most distinguished himself at the Examination in the course prescribed for Literary Scholarships of the First year in Arts. Candidates for these Scholarships shall have previously declared themselves, and have Matriculated as Medical Students. It is left to their option for which of them they will compete.

Subjects of Examination for Medical Scholarships of the Second Year.

Anatomy and Physiology.	General Physics.
Chemistry.	Zoology and Botany.

The French Language.

Subjects of Examination for Medical Scholarships of the Third Year.

Anatomy and Physiology.	Materia Medica.
Practical Anatomy.	Practical Chemistry.

Subjects of Examination for Medical Scholarships of the Fourth Year.

Anatomy and Physiology.	Pathology and Morbid Anatomy.
Practical Anatomy.	Surgery.
Therapeutics.	Midwifery.

Note.—The 18th of November will be the last day for entering for the Six Months' Courses of Lectures in the above Curriculum. All the Lectures are recognised by the Queen's University in Ireland, by the Universities of London, Glasgow, Aberdeen, and St. Andrew's; the Colleges of Surgeons of Dublin, Edinburgh, and London; by the Apothecaries' Companies, by the Army, Navy, and East India Medical Boards, &c., &c.

DEGREES OF M.D. AND M.CH.*

Each Candidate for the Degree of Doctor in Medicine or Master in Surgery is required—

1st.—To have passed in one of the Colleges of the Queen's University the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University.

2nd.—To have attended in one of the Queen's Colleges, Lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months.

3rd.—To have also attended, in some one of the Queen's Colleges, at least two of the courses of Lectures marked with an asterisk. For the remainder of the courses, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.

4th.—To pass two University Examinations—the First University Examination, and the Degree Examination.

The Curriculum shall extend over at least four years, and shall be divided into periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination, prior to entering on the second period.

It is recommended that the first period shall comprise attendance on the following Courses of Medical Lectures:—

* Chemistry.
* Botany, with Herborizations for practical study, and Zoology.
* Anatomy and Physiology.
* Practical Anatomy.
* Materia Medica and Pharmacy.

And that the second period shall comprise attendance on the following Courses of Medical Lectures:—

Anatomy and Physiology (Second Course).
Practical Anatomy (Second Course).
* Theory and Practice of Surgery.
* Midwifery.
* Theory and Practice of Medicine.
* Medical Jurisprudence.

In addition to the above Courses of Lectures, Candidates shall have attended during either the first or second period—

A Modern Continental Language (in one of the Colleges of the University).
Experimental Physics (in one of the Colleges of the University).

Also, during the first period—

Practical Chemistry (in a recognised Laboratory).
Medico-Chirurgical Hospital (recognised by the Senate) containing at least sixty beds, together with the Clinical Lectures therein delivered, at least Two each Week—a Winter Session of Six Months.

And during the second period—

Practical Midwifery, at a recognised Midwifery Hospital, with the Clinical Lectures therein delivered—for a period of Three Months, in an Hospital containing not less than Thirty beds; or six Months, in an Hospital containing not less than Fifteen beds.

Medico-Chirurgical Hospital (recognised by the Senate) containing at least sixty beds, together with the Clinical Lectures therein delivered—Eighteen Months; including either three Winter Sessions of Six Months each, or two Winter Sessions of Six Months each, and two Summer Sessions of Three Months each.

Medical Examinations are held in June, and in September and October.

The June Examinations are Pass Examinations, and commence on the Tuesday following the Second Saturday in June.

* The regulations under which degrees in Surgery will be conferred on Candidates who graduated in Medicine before the year 1865, may be learned on application to the Secretary of the Queen's University.

Appendix A.

General Regulations of College, &c.

The Honor Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each Candidate for Examination in June must forward to the Secretary, on or before the first of June, notice of his intention to offer himself as a Candidate, along with his Certificates; and each Candidate for Examination in September or October must forward similar notice, along with his certificates.

Exhibitions in the Faculty of Medicine.

Two exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be competed for annually in the Faculty of Medicine. These exhibitions will be awarded for proficiency in the non-professional part of the first University Examination in Medicine: the £20 exhibition, to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two colleges; provided that their names appear in the First Class of the Division List at that examination.

Each Candidate will be deemed a student of that College in which he shall have attended the Lectures of the second session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The exhibitions in Medicine will be paid in two equal instalments: one at the time of competition; the other when the exhibitioner takes the Degree of M.D. in the Queen's University, provided that he graduate with honors, and within three academic years from the time of competition.

Prize in Composition, limited to the Competition of Undergraduates in Medicine.

A prize of £5 worth of books has been founded, for a thesis on a subject to be prescribed, and is limited to the competition of the Undergraduates in Medicine who shall not have already twice received the prize.

The subjects on which the competitors for composition prizes are to write, will be announced on or before the first of June in each year; the compositions, with fictitious signatures, are to be sent in to the Secretary of the University, on or before the first of the following September, and the successful competitors will be declared at the next Public Meeting of the University.

Faculty of Law.

Lectures.

The complete Course for each Class consists of Twenty-four Lectures, by the Professor of English Law, in each Collegiate Session; and of Twenty-four Lectures in each course of the first two years, and Twelve in that of the fourth year, by the Professor of Jurisprudence. The Lectures are delivered in the months of December, February, and March.*

*The following Rules were adopted by the Honorable Society of King's Inns, in Hilary Term, 1862, with reference to attendance on Lectures, as a condition precedent to being called to the Bar, viz.:—

V.—Every Student admitted into the Society after the first day of Trinity Term, One Thousand Eight Hundred and Fifty, if a Graduate of the University of Dublin, Oxford, Cambridge, Durham, or London, or the Queen's University in Ireland, shall, as a condition precedent to being called to the Bar, produce Certificates of his having attended two complete Courses *at least* of Lectures, viz.:—one complete Course of Lectures of any two, at his option, of the four Law Professors, namely, the Law Professors of the University of Dublin, and those of the King's Inns, and *at least* five-sixths of the Lectures of each Session or University Term; or if a Graduate in Arts of the Queen's University in Ireland, shall have the option of producing Certificates of having attended two complete Courses, at least, of Lectures of each of the two Law Professors of any College of the Queen's University, comprising not less than thirty-six Lectures, and at least five-sixths of the

LAW SCHOLARSHIPS.

Examination by the Professor of Jurisprudence.

First Year:

Reddie's Inquiries in the Science of Law.
Adam Smith's Wealth of Nations—Book III.
Hallam's Middle Ages—Chap. 8.

Second Year:

The Lectures of the Professor in the First Year (see note).
Sandar's Institutes of Justinian—Introduction.
The Chapters on Social Science in J. S. MILL's Logic—Book VI., Chap. 6, to end of the Book.

Third Year:

Ancient Law, by H. S. Maine (omitting latter part of chap. 9, from p. 340).
Sandar's Justinian, and the Lectures of the Professor, in the first and second year.

NOTE.—The following works may be referred to in connexion with the principal subjects discussed in the Lectures on Jurisprudence:—

Dumont's Bentham (translation by Hildreth), "Principles of Legislation," and 1st and 2nd parts of the "Principles of the Civil Code."
Stephens' "Criminal Law."
Mill's "Political Economy"—Chapters on Property, 1 and 2, Book II., and on the Functions of Government, 8, 9, 10, 11, Book V.
Mill's "Representative Government."

Examination by the Professor of English Law.

First Year:

Williams—Principles of the Law of Real Property.

Second Year:

The Lectures of the Professor for the preceding years.
Smith—Manual of Equity Jurisprudence.
Williams—Principles of the Law of Personal Property.
Smith—On Contracts.

Third Year:

The Lectures of the Professor for the preceding years.
Smith—Leading cases on branches of the Law.
Storey—Equity Jurisprudence.

Lectures of each Course, and of having passed the Examinations, in the College to which he belongs, on the subjects of the aforesaid two Courses of Lectures, provided that the curriculum prescribed by the said two Courses of Lectures shall embrace all that is contained in the Course now prescribed by the Professors of the King's Inns, or as the same may be from time to time varied by any rules of the Benchers.

VI.—Every Student admitted into the Society after the above date (if not a Graduate of one of the said Universities), shall, as a condition precedent to being called to the Bar, produce Certificates of his having attended four Courses of Lectures, viz.:—One Course of the Lectures of each of the said four Professors, and, *at least*, five-sixths of the Lectures of each Session, or University Term, in such manner, however, that every such Student shall be engaged not less than three years in the study of the Law in Ireland, exclusive of the two years necessary for keeping Terms in England; in every one of which three years, one complete Course of Lectures must be kept; any Student who shall produce Certificates of his having attended during three years the Courses of Lectures delivered by the Professors of English Law and of Jurisprudence, in one of the Colleges of the Queen's University, and of his having passed the General Examinations in such College on the subjects so Lectured on, shall be deemed entitled to such and the same privileges, in respect to his being called to the Bar, as if he had actually attended One Course of the Lectures of each of the two Law Professors of the University of Dublin, and had been engaged for two years in such attendance; but this rule and the preceding one are not intended to affect the number of Terms' Commons required by the present Rules of the Society, to be kept by Students of the King's Inns, prior to being called to the Bar.

VII.—If from illness, or other sufficient cause, any Student should be prevented from completing any Course of Lectures necessary towards being called to the Bar, the Legal Education Committee have power to direct what further attendance, if any, shall be sufficient in such case.—*Rules as to Legal Education, No.* 3.

Appendix A.

General Regulations of College, &c.

The Senior Law Scholarship will be awarded to the most distinguished Student who shall have proceeded in the Course of Arts to the Degree of A.B., and who shall have completed the Course of Legal Study prescribed to Candidates for the Degree of LL.B.

For the Senior Scholarship in Law.

The Lectures of the Professors and subjects appointed for Scholarship Examination in the preceding years.
Sugden—The Law of Vendors and Purchasers.
Furlong—Law of Landlord and Tenant.
Taylor—Treatise on the Law of Evidence.
Stephen—Treatise on the Principles of Pleading.
Hallam—Constitutional History.
May's Constitutional Law.

DEGREES IN LAW.

Candidates for the Diploma of Elementary Law must have passed a Matriculation Examination* (see page 12), and pursued the following

Course of Study for the Diploma of Elementary Law.

First Session—Law of Property and Principles of Conveyancing—Jurisprudence.

The Course of the Professor of English Law for the Class of the First Year, "The Law of Real Property," comprises Elementary Instruction in this branch of Law, and in practical Conveyancing. The text-book read is Williams on "Real Property." The first volume of Stephens' edition of Blackstone's Commentaries, and the second volume of Kerr's edition, are recommended for perusal.

Second Session—Equity and Bankruptcy—Civil Law.

The Course of the Professor of English Law for the Class of the Second Year, "The Law of Personal Property," Equity, and "Bankruptcy," comprise instructions in those branches of law, and in the practical application of Precedents, &c. The text-books read are Williams on "Personal Property," Smith's "Manual of Equity," "The late Statute of Bankruptcy and Insolvency," by Adams. The second volume of Stephens' and Kerr's editions of Blackstone's Commentaries, and Smith's "Mercantile Law," are recommended for perusal.

Third Session—Common and Criminal Law.

The Course of the Professor of English Law for the Class of the Third Year, "Common and Criminal Law," comprises the History, Constitution, and Jurisdiction of the several Courts of Justice; Procedure in Crown and Civil Causes at Law and in Equity, as also in the Local Courts. The text-books are the third and fourth volumes of Blackstone's Commentaries, Stephens' and Kerr's editions, Broom's "Common Law," Broom's "Maxims," Smith's "Leading Cases," and Copinger's "County Courts," are recommended for perusal.

Students intending to proceed for the certificate of the Law Professors, so as to entitle themselves to serve an apprenticeship of four years instead of five, under the Act for amending the several Acts for the regulation of Attorneys and Solicitors (14 and 15 Vict., chap. 88), must enter their names with the Registrar of one of the Queen's Colleges of Cork, Belfast, and Galway, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session.

Such Students need not pass the Matriculation Examination, but must attend the Lectures, and pass the College Examinations prescribed for the first and

* NOTE.—It will be sufficient for such Candidate to have passed his Examination at *any* time previous to applying for the Diploma. By the Act of Parliament, 14 and 15 Vic., cap. 88, it is provided, that every person who, as a Matriculated or Non-Matriculated Student, shall have attended the prescribed Lectures, and passed the prescribed Examinations of the Professors of the Faculty of Law for two Collegiate years, and who shall have duly served as an apprentice or clerk by contract in writing, duly stamped at or before the signing thereof, or within six months after, for the term of four years, shall, at any time after the expiration of five years from the commencement of such attendance on Lectures, or of such a period of service, whichever shall first happen, be qualified to be admitted as an Attorney or Solicitor as fully and effectually as any person having been bound, and having served five years is now qualified to be admitted. See also the same Act for the privileges extended to Graduates of the Queen's University, respecting admission to the profession of Attorney or Solicitor.

second years, of the course of study for Candidates for the Diploma in Elementary Law.

Candidates for the Degree of LL.B. will be admitted to Examination for that Degree from the Queen's University in Ireland, provided they shall have proceeded to the Degree of A.B., and shall have attended the Lectures and passed the Examinations prescribed for the Elementary Course, and shall also have pursued the following

Additional Course of Study for the Degree of LL.B.

Fourth Session—A more extended Course of Study in the subjects appointed for the Diploma—The Law of Evidence and Pleading in the Courts of Common Law and Equity, and Constitutioual Law.

Students who have obtained the Degree of LL.B. will, at the expiration of two years after they have obtained the Degree, be admitted to the Examination for the Degree of LL.D. They are examined in the Laws of the Admiralty and Ecclesiastical Courts of England and Ireland, and in International Law.

Books recommended:

Lord Hale's Treatise, De Jura Maris.
Dr. FitzHenry Townsend's statement of the differences in Jurisdiction and Practice between the English and Irish Courts of Admiralty, annexed to the Report of the Royal Commission of Inquiry, 1864.
Rogers' Ecclesiastical Law.
Wheaton's International Law.
'Historicus,' Letters of, on International Law.

PROGRAMME OF THE TIMES AND SUBJECTS OF THE SCHOLARSHIP EXAMINATIONS FOR THE SESSION 1865–66.

Examination Days.	From 9 to 12 o'clock.	From 2 to 5 o'clock.
Thursday, October 19th,	Greek. Geometrical Drawing.	Greek.
Friday, October 20th,	Latin.	Mathematics.
Saturday, October 21st.	Modern Languages.	Pathology. Latin.
Monday, October 23rd,	Materia Medica. Therapeutics. English Language.	Zoology and Botany. Practical Anatomy.
Tuesday, October 24th,	English Literature.	Anatomy and Physiology.
Wednesday, Oct. 25th,	Surveying, &c. Surgery.	Practical Chemistry.
Thursday, October 26th,	Political Economy. Jurisprudence. Civil Law.	English Law. Midwifery.
Friday, October 27th,	Logic. Metaphysics,	History. Chemistry.
Saturday, October 28th,	Natural Philosophy.	Geology and Mineralogy.

Appendix A.

General Regulations of College, &c.

The Senior Law Scholarship will be awarded to the most distinguished Student who shall have proceeded in the Course of Arts to the Degree of A.B., and who shall have completed the Course of Legal Study prescribed to Candidates for the Degree of LL.B.

For the Senior Scholarship in Law.

The Lectures of the Professors and subjects appointed for Scholarship Examination in the preceding years.
Sugden—The Law of Vendors and Purchasers.
Furlong—Law of Landlord and Tenant.
Taylor—Treatise on the Law of Evidence.
Stephen—Treatise on the Principles of Pleading.
Hallam—Constitutional History.
May's Constitutional Law.

DEGREES IN LAW.

Candidates for the Diploma of Elementary Law must have passed a Matriculation Examination* (see page 12), and pursued the following

Course of Study for the Diploma of Elementary Law.

First Session—Law of Property and Principles of Conveyancing—Jurisprudence.
The Course of the Professor of English Law for the Class of the First Year, "The Law of Real Property," comprises Elementary Instruction in this branch of Law, and in practical Conveyancing. The text-book read is Williams on "Real Property." The first volume of Stephens' edition of Blackstone's Commentaries, and the second volume of Kerr's edition, are recommended for perusal.

Second Session—Equity and Bankruptcy—Civil Law.
The Course of the Professor of English Law for the Class of the Second Year, "The Law of Personal Property," Equity, and "Bankruptcy," comprise instructions in those branches of law, and in the practical application of Precedents, &c. The text-books read are Williams on "Personal Property," Smith's "Manual of Equity," "The late Statute of Bankruptcy and Insolvency," by Adams. The second volume of Stephens' and Kerr's editions of Blackstone's Commentaries, and Smith's "Mercantile Law," are recommended for perusal.

Third Session—Common and Criminal Law.
The Course of the Professor of English Law for the Class of the Third Year, "Common and Criminal Law," comprises the History, Constitution, and Jurisdiction of the several Courts of Justice; Procedure in Crown and Civil Causes at Law and in Equity, as also in the Local Courts. The text-books are the third and fourth volumes of Blackstone's Commentaries, Stephens' and Kerr's editions, Broom's "Common Law," Broom's "Maxims," Smith's "Leading Cases," and Copinger's "County Courts," are recommended for perusal.

Students intending to proceed for the certificate of the Law Professors, so as to entitle themselves to serve an apprenticeship of four years instead of five, under the Act for amending the several Acts for the regulation of Attorneys and Solicitors (14 and 15 Vict., chap. 88), must enter their names with the Registrar of one of the Queen's Colleges of Cork, Belfast, and Galway, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session.

Such Students need not pass the Matriculation Examination, but must attend the Lectures, and pass the College Examinations prescribed for the first and

*NOTE.—It will be sufficient for such Candidate to have passed his Examination at *any* time previous to applying for the Diploma. By the Act of Parliament, 14 and 15 Vic., cap. 88, it is provided, that every person who, as a Matriculated or Non-Matriculated Student, shall have attended the prescribed Lectures, and passed the prescribed Examinations of the Professors of the Faculty of Law for two Collegiate years, and who shall have duly served as an apprentice or clerk by contract in writing, duly stamped at or before the signing thereof, or within six months after, for the term of four years, shall, at any time after the expiration of five years from the commencement of such attendance on Lectures, or of such a period of service, whichever shall first happen, be qualified to be admitted as an Attorney or Solicitor as fully and effectually as any person having been bound, and having served five years is now qualified to be admitted. See also the same Act for the privileges extended to Graduates of the Queen's University, respecting admission to the profession of Attorney or Solicitor.

second years, of the course of study for Candidates for the Diploma in Elementary Law.

Candidates for the Degree of LL.B. will be admitted to Examination for that Degree from the Queen's University in Ireland, provided they shall have proceeded to the Degree of A.B., and shall have attended the Lectures and passed the Examinations prescribed for the Elementary Course, and shall also have pursued the following

Additional Course of Study for the Degree of LL.B.

Fourth Session—A more extended Course of Study in the subjects appointed for the Diploma—The Law of Evidence and Pleading in the Courts of Common Law and Equity, and Constitutioual Law.

Students who have obtained the Degree of LL.B. will, at the expiration of two years after they have obtained the Degree, be admitted to the Examination for the Degree of LL.D. They are examined in the Laws of the Admiralty and Ecclesiastical Courts of England and Ireland, and in International Law.

Books recommended:

Lord Hale's Treatise, De Jura Maris.
Dr. FitzHenry Townsend's statement of the differences in Jurisdiction and Practice between the English and Irish Courts of Admiralty, annexed to the Report of the Royal Commission of Inquiry, 1864.
Rogers' Ecclesiastical Law.
Wheaton's International Law.
'Historicus,' Letters of, on International Law.

PROGRAMME OF THE TIMES AND SUBJECTS OF THE SCHOLARSHIP EXAMINATIONS FOR THE SESSION 1865–66.

Examination Days.	From 9 to 12 o'clock.	From 2 to 5 o'clock.
Thursday, October 19th,	Greek. Geometrical Drawing.	Greek.
Friday, October 20th,	Latin.	Mathematics.
Saturday, October 21st.	Modern Languages.	Pathology. Latin.
Monday, October 23rd,	Materia Medica. Therapeutics. English Language.	Zoology and Botany. Practical Anatomy.
Tuesday, October 24th,	English Literature.	Anatomy and Physiology.
Wednesday, Oct. 25th,	Surveying, &c. Surgery.	Practical Chemistry.
Thursday, October 26th,	Political Economy. Jurisprudence. Civil Law.	English Law. Midwifery.
Friday, October 27th,	Logic. Metaphysics,	History. Chemistry.
Saturday, October 28th,	Natural Philosophy.	Geology and Mineralogy.

Appendix A.

General Regulations of College, &c.

Table of Hours of Lecture.

Name of the Class.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Senior Greek,	9	9	10	–	9	–
Junior Greek,	10	–	9	9	10	–
Extra Greek,	–	10	–	10	–	–
Senior Latin,	10	–	9	–	10	–
Junior Latin,	9	10	10	10	–	–
Extra Latin,	–	11	–	11	–	–
English Language,	–	11	–	11	–	10
English Literature,	–	12	–	12	–	11
History,	1	–	1	–	1	–
Medical French,	12	–	12	–	12	–
Senior French (*Arts and Engineering*),	1	–	1	–	1	–
Junior French (*Arts and Engineering*),	2	–	2	–	2	–
German or Italian,	–	2	–	2	–	2
Celtic Languages,	12	–	12	–	12	–
Logic,	–	12	–	12	–	9
Metaphysics,	–	1	–	1	–	10
Political Economy and Jurisprudence,	–	11	11	11	11	–
Senior Mathematics,	2	–	2	–	2	–
Junior Mathematics,	12	–	12	–	12	–
Third Year's Mathematics,	3	–	3	–	3	–
Mathematical Physics,	–	–	12	–	12	–
Mathematical Physics (*Engineering*),	1	–	–	1	–	–
Experimental Physics, Senior,	11	–	11	–	11	–
Experimental Physics, Junior,	–	11	–	11	–	–
Engineering Physics,	–	1	–	–	1	–
Physics (Honor),	12	–	–	12	–	–
Chemistry,	11	–	11	–	11	–
Practical Chemistry,	3	11	3	11	3	–
Practical Chemistry,	–	2	–	2	–	–
Zoology and Botany,	3	–	3	–	3	–
History and Diseases of Farm Animals,	–	9	–	9	–	9
Geology and Mineralogy,	1	–	1	–	1	–
Senior Engineering,	12	–	12	–	12	–
Junior Engineering,	–	10	–	10	–	10
Geometrical Drawing,	10	–	10	–	10	–
Office Work (10 till 2),	–	10	–	10	–	10
Senior Agriculture,	–	10	–	10	–	10
Junior Agriculture,	–	1	–	1	–	1
Anatomy and Physiology,	1	1	1	1	1	–
Practical Anatomy,	12	12	12	12	12	–
Medicine,	3	–	3	–	3	–
Surgery,	2	–	2	–	2	–
Materia Medica,	–	3	–	3	–	12
Midwifery,	4	–	4	–	4	–
Medical Jurisprudence,	–	12	–	12	12	–
English Law (1st year),	–	11	11	11	11	–
English Law (2nd year),	–	3	3	3	3	–
English Law (3rd year),	–	9	9	9	9	–
English Law (4th year),	–	12	12	12	12	–
Jurisprudence,	–	1	1	1	1	–
Civil Law,	–	4	4	4	4	–
Constitutional and International Law,	–	10	10	10	10	–

The Fees payable by Students, whether Matriculated or Non-matriculated, to the several Professors, for attendance on the several Pass Courses of Lectures or instruction, which are now or may be hereafter prescribed by the College Council, for any Degree or other University distinction, shall be £1 for each Course extending over one Term only, and £2 for each Course extending over more than one Term of a Session, when attended for the first time, and £1 for each re-attendance on the same; except that the Fee payable for the Course of Anatomy and Physiology shall be £3 when attended for the first time, and £2 for every subsequent attendance; except also, that the Fee payable for Practical Anatomy or Practical Chemistry, shall be £3 for each attendance.

In the case of Students receiving special instructions, not prescribed as a qualification for a Degree or other University distinction, or attending Honor Courses of Lectures, the Council shall have power to fix the amount of the Fee to be paid by each Student; provided that the Fee to be paid for any Honor Course of Lectures which Students are entitled to substitute for a prescribed Pass Course, shall, in no case, be less than £2. *Appendix A.* General Regulations of College, &c.

Hospital Attendance.—Clinical Lectures on Medicine and Surgery are delivered at the North and South Infirmaries, by the Physicians and Surgeons of those Institutions.

	£	s.	d.
Fee for twelve months,	8	8	0
Fee for six months,	5	5	0
Practical Pharmacy at the same Infirmaries:			
Fee for three months,	3	3	0
Clinical Midwifery at the Lying-in Hospital, with Practical Attendance upon Thirty Midwifery cases:			
Fee for six months,	3	3	0

Further information may be had from the Medical Officers at the Infirmaries.

APPENDIX.

Outlines of the Courses of Lectures delivered by the Professors of the Faculty of Arts.

Literary Division of the Faculty of Arts.

In Greek and Latin the classification of the Students is irrespective of their Collegiate standing; those of the First and Second years being distributed between two classes according to their proficiency. There is also in each of these Departments an Extra Class, the attendance on which is voluntary, and which consists generally of those Students who propose to become Candidates for Degree of A.M. or Classical Honors in the Queen's University, or for appointments in the Indian Civil Service.

Both the Extra and Ordinary Classes are open to Non-Matriculated Students, *i.e.* to gentlemen who have not yet commenced their Undergraduate course, or who do not intend to take *Degrees in Arts.*

The Greek Language.

Professor, John Ryall, ll.d.

Junior Class, Monday, Wednesday, Thursday, and Friday.
Second Year, Monday, Wednesday, Thursday, and Friday.
Third Year, Tuesday, Thursday.
Junior Class, Xenophon—Helenica, Books I. and II.
Senior Class, Æschylus—Septem contra Thebas. Thucydides, Book VII.
Extra Class, Plato—Republic.
Exercises in Prose and Verse, according to the proficiency of the Students.

Fee payable for each Sessional Course, £2.

The Latin Language.

Professor, Bunnell Lewis, m.a., f.s.a.

Senior Class, Monday, Wednesday, and Friday:
Juvenal—Satires, I., III., IV., V.
Cicero—2nd Philippic.
Junior Class, Monday, Tuesday, Wednesday, and Thursday:
Livy—Part of Book XXII.
Horace—Satires, Book I., beginning at Satire 6.
Exercises in both Classes chiefly from Arnold's Introduction to Latin Composition.
Extra and Third Year's Class, Tuesday and Thursday:
Tacitus—Annals, Book III.
Plautus—Miles Gloriosus.

Appendix A.

General Regulations of College, &c.

In this Class special attention is paid to original Composition, and to translation from English Authors into Latin.

Fee payable for each Sessional Course, £2.

MODERN HISTORY, ENGLISH LITERATURE, AND THE HISTORY OF THE ENGLISH LANGUAGE.

Professor, WILLIAM RUSHTON, M.A.

1st and 2nd Term. {Modern History, Monday, Wednesday, and Friday.
{English Literature, Tuesday, Thursday, and Saturday.

2nd Term—The History of the English Language, Tuesday, Thursday, Saturday.

Modern History:

The Course will include General History from the 5th to the 15th Century, inclusive.

English Literature:

The Course will include the History of English Literature, along with a Critical Examination of its Standard Works from the earliest period up to the present day.

The History of the English Language:

The Lectures in this Course will treat of the History of the English Language, and its relationship to the Anglo-Saxon, along with its kindred tongues and dialects. In subservience to this arrangement the more remarkable stages through which the Anglo-Saxon passed into Semi-Saxon, the Semi-Saxon into Old English, and the Old English into Modern English, will be analyzed and explained Historically and Philologically.

Composition:

English Composition will, at stated periods, be required from the Students.

Fee payable for each Course, £2.

MODERN LANGUAGES.

Professor, R. DE VERICOUR, D. ès. L.

French Class (Medical), Mondays, Wednesdays, and Fridays, at 12 o'clock.

Senior French Class (Arts and Engineering), Mondays, Wednesdays, and Fridays, at 1 o'clock.

Junior French Class (Arts and Engineering), Mondays, Wednesdays, and Fridays, at 2 o'clock.

German or Italian, Tuesdays and Fridays, at 2 o'clock.

Medical French—Lectures sur les Sciences par Achille Compte. Extracts from Bichat, Andral, Lallemand, and Chomel. Weekly Lectures on the Grammar and Idioms.

Senior and Junior French—Corneille's Cid and Cinna. Fables de Lafontaine. Racine's Athalie, and Esther. Histoire de la Revolution Française, par Mignet. La Misanthrope and L'Avare of Molière. Histoire de la Littérature Française, par Demogeot. Lectures sur les Sciences, par Achille Comte. Weekly Lectures on the Grammar and Idioms.

Italian—Silvio Pellico. Tasso. Extracts from Machiavelli, Guicciardini, Davila, Manzoni. Weekly Lectures.

German—Goethe's Ballads and Iphigenie. Schiller's Wilhelm Tell. National Literature, von A. F. Vilmar. Weekly Lectures.

SPECIAL COURSE NOT REQUIRED FOR A DEGREE.—CELTIC LANGUAGES.

Professor, OWEN CONNELLAN, Esq.

Monday, Wednesday, and Friday.

Subject—I. The Celtic Family of Languages; and its existing derivations, the Erse or Gaelic, Manx, Welch, Armorican, and Hiberno-Celtic. The Ogham Alphabet. The Ancient Literature of Ireland, viz.:—The earlier Bardic Compositions, the Ossianic Poems and Fenian Legends; View of the Contemporaneous state of Ireland.*

" II. The Irish Language as now extant, its Grammar, Vocabulary, and Dialects. In this part of the course, the Student will be taught to speak and write the language grammatically.

Fee for each Sessional Course, £2.

* The Lectures will be illustrated by reference to Irish MSS., and such publications on Irish Historical and general Literature as are at present accessible.

Science Division of the Faculty of Arts.

Mathematics.

Professor, Robert Romer, M.A.

Junior Class, Monday, Wednesday, and Friday.
Subjects—Arithmetic, Algebra, Geometry, and Plane Trigonometry.
Second Year's Class, Monday, Wednesday, and Friday.
Subjects—Analytical Geometry, Trigonometry, Differential and Integral Calculus.
Third Year's Class:
Subjects—Geometry of three dimensions, Differential Equations, &c.
Exercises are regularly set in each of the Classes.

Fee payable for each Sessional Course, £2.

Logic and Metaphysics.

Professor, George Sidney Read, A.M.

2nd Term, . Logic, . Tuesday, Thursday, and Saturday.
1st & 2nd Terms, Metaphysics, Do. do. do.

Logic.—This Course consists of:—

I.—Lectures, Examinations, and Exercises in Aldrich's Compendium of Logic, occupying the early part of the Term, &c.

II.—A full discussion of Classification, the Theory of Hypothetical Syllogisms and of Induction, and the Analytic of Logical Forms, as contained in the works of Mill, Whately, Thompson, and Baynes.

Throughout the Course the Students will be expected to familiarize themselves with the reduction of arguments to their strict Logical Form by written exercises, which will be examined by the Professor.

Metaphysics.—This Course will embrace:—

I.—The Philosophy of the Inductive Sciences, illustrated by reference to Lord Bacon, Whewell, and Mill; and—

II.—The History of Mental Philosophy, comprising—

1st.—The origin, progress, and development of Modern Philosophy anterior to the rise of the Scottish School.

2nd.—A critical examination of the works of the more celebrated writers of that School.

3rd.—A brief view of the present state of Philosophy in the British Islands and on the Continent.

Political Economy.

Professor, Richard Horner Mills, A.M.

Political Economy.—The nature and distribution of wealth, the principles which regulate Rents, Profits, and Wages; the Principles of Commerce, of Taxation, of the Funding System, and of Currency and Banking.

Books recommended:—

Adam Smith—Wealth of Nations.
Senior—Political Economy.
Fawcett's Manual of Political Economy.
John Stuart Mill—Political Economy.
Richard H. Mills—Lectures on Currency and Banking (Second Edition).
M'Culloch—Taxation and Funding (Third Edition).
Goschen on Foreign Exchanges.

The Course consists of Twenty-four Lectures, delivered in the months of December, February, and March; the Students are required in the intervals to prepare the subjects which will be pointed out by the Professor.

Chemistry.

Professor, John Blyth, M.D.

Monday, Wednesday, and Friday.

The Course is divided into Inorganic and Organic Chemistry.

In the first part are discussed the Laws of Combination and Affinity, Molecular Chemistry and Crystallography, and the History of the Non-Metallic and Metallic substances.

Appendix A.

General Regulations of College, &c.

In the Organic portion of the Course will be considered the subjects of Organic Analysis, Organic Series, Compound Radicals and Types, Metamorphoses of Organic Bodies, History of special Animal and Vegetable Bodies.

In treating of the Laws of Chemistry, and the History of Inorganic and Organic Bodies, those points will be chiefly dwelt upon which have a practical bearing in the Arts, Medicine, Engineering, and Agriculture. Thence, during the Course, attention will be directed to the application of Chemistry to Medicine and Physiology, to Metallurgic Operations, Chemical Manufactures, Building Materials, Soils, Manures.

Fee, for each Sessional Course, £2. Each subsequent Course, £1.

Analytical Chemistry:

The Chemical Laboratory is open daily, except on Saturdays, from 10 to 4 o'clock, under the superintendence of the Professor, for students desirous of prosecuting an extended course of qualitative and quantitative analysis, and for the purpose of original investigation in connexion with the arts, or in the higher departments of Scientific Chemistry.

Natural Philosophy.

Professor, John England, A.M.

Experimental Physics (Senior):

Text Books—Galbraith and Haughton's Manuals of Mechanics, Hydrostatics, &c.; Pouillet; Traite de Physique.

Experimental Physics (Junior):

Text Books—Ganot, Traite de Physique.

Mathematical Physics:

Text Books—Duhamel's Mecanique, Vol. I., omitting Attractions, and Vol. II., Central Forces. Lloyd's Light and Vision, Part I., omitting Chapters IV. and VII. Part II., Chapters I. and III. Brinkley's Astronomy.

Engineering Physics:

Text Books—Tate's Exercises in Mechanics, selections from the works of Mosely, De Pambour, Weisbach, &c.

Natural History.

Professor, Joseph Reay Greene, A.B.

Monday, Wednesday, and Friday.

The Lectures delivered by the Professor of Natural History are as follows:—

A Course of Lectures on General Zoology.
A Course of Lectures on Botany.

Students may obtain Certificates of Attendance on all or any of these Courses.

Text Books recommended:

In Botany—"Elementary Course of Botany," by Henfrey.
In Zoology—"Zoologie" (in Cours Elémentaire d'Histoire Naturelle), par Milne Edwards; or the English translation of the same work by Dr. Knox.

Such Students as desire during the Summer months to pursue the study of Botany in the field, are requested to provide themselves with Lindley's "Descriptive Botany," and Bentham's "Handbook of the British Flora."

Geology and Mineralogy.

Professor, Robert Harkness, F.R.S.S.L. & E., F.G.S.

Monday, Wednesday, and Friday.

General Structure of the Earth; the causes at present in operation which modify its surface; Nature of Rocks which enter into composition with the crust of the Globe; description and classification of Sedimentary Deposits; Organic Remains; Physical Geography of the Earth during the several geological epochs; characters and nature of Igneous, Plutonic, and Metamorphic Rocks; Mineral Veins—their contents and mode of occurrence; application of Geology to Engineering, Mining, Agriculture and Land Improvement.

Forms, Structure, Physical and Chemical characters of Minerals; descriptions of the most important simple materials—circumstances and conditions under which they are found.

CIVIL ENGINEERING.

Professor, ALEXANDER JACK, A.M.

FIRST YEAR.—Monday, Wednesday, and Friday.

Subject of Lectures—Orthographic Projection; Descriptive Geometry; Shadows; Isometric Projection; Perspective; Principles of Architecture.

Text Books—Hall's Descriptive Geometry; Engineer and Machinist's Drawing Book; Rickman's Architecture.

SECOND YEAR.—Tuesday, Thursday, and Saturday.

Subject of Lectures—Surveying and Levelling.

Text Books—Rankine's Civil Engineering; Cotton's Manual of Railway Engineering; Williams' Geodesy.

THIRD YEAR.—Monday, Wednesday, and Friday.

Materials used in Construction; Principles of Construction of Bridges, Roads, Railways, Canals; Hydraulic Engineering; Strength of Materials; Principles of the Construction of the different Machines employed by the Engineer.

DRAWING OFFICE.—Attended by all the Classes.—Tuesday, Thursday, and Saturday.

The First Year's Class are chiefly employed in drawing the problems given at lectures, and a few easy examples of their application. The Second and Third Year's Classes, in making working drawings of examples of the subjects of lectures, and in Mapping.

Practical Instruction in the Field in the use of Surveying Instruments will be given during the Session.

AGRICULTURE.

Professor, EDMUND MURPHY, A.B.

Subjects of the Sessional Examination in Agriculture at the end of Second Session.

Practice of Agriculture—Agricultural Implements and Machines. On Sheltering, Fencing, Draining and Deepening Land. Culture of Farm Crops. Construction of Farm Buildings. Reclamation and Irrigation of Land. Valuation of Land and Farm Finance.

Text Books in the Theory of Agriculture—Henfrey's Structural and Physiological Botany. Johnson's Lectures on Agricultural Chemistry and Geology.

In the Practice of Agriculture—Stephens' Book of the Farm, and Morton's Encyclopædia.

Subjects of Examination in the History and Diseases of Farm Animals.

Animal Physiology in reference to Farm Animals. The Natural History of Farm Animals. The Breeding, Rearing, and General Management of Farm Animals, with their diseases and the ordinary remedies.

SPECIAL PROSPECTUS of COURSES of INSTRUCTION given in the COLLEGES which are applicable to the EXAMINATION for the INDIAN CIVIL SERVICE.

Subjects of Examination for the Indian Civil Service.		*Lectures on these Subjects in Queen's College, Cork.*
1. ENGLISH LANGUAGE and LITERATURE:		HISTORY and ENGLISH LANGUAGE—*Professor*, William Rushton, A.M.
a. Composition,	Marks, 500	*First Term.*—Modern History; Monday, Wednesday, and Friday.
b. English Literature and History, including that of the Laws and Constitution,	Marks, 1,000	*Second Term.*—English Literature; Tuesday, Thursday, and Saturday. History of the English Language, Tuesday, Thursday, Saturday.
	1,500	English Composition will, at the stated periods, be required from the students.

Appendix A.

Special Prospectus of Courses for Competitive Examinations.

2. LANGUAGE, LITERATURE, and HISTORY of GREECE:
Marks, 750

GREEK—*Professor*, John Ryall, LL.D.
Senior Class: Monday, Friday, Wednesday.
Junior Class: Monday, Friday, Wednesday, Thursday.
Extra Class: Tuesday, Thursday.

3. LANGUAGE, LITERATURE, and HISTORY of ROME:
Marks, 750

LATIN—*Professor*, Bunnell Lewis, M.A. F.S.A.
Senior Class: Monday, Wednesday, Friday.
Junior Class: Monday, Tuesday, Wednesday, Thursday.
Extra Class: Tuesday and Thursday.
The Extra Class, both in Latin and Greek, the attendance on which is voluntary, consists generally of those students who propose to become Candidates for the Degree of M.A., or Classical Honors, in the Queen's University, or for appointments in the Indian Civil Service.

4. LANGUAGE, LITERATURE, and HISTORY of FRANCE:
Marks, 375

FRENCH—*Professor*, R. De Vericour, D. ES. L.
Senior Class: Monday, Wednesday, Friday.
Junior Class: Monday, Wednesday, Friday.

5. LANGUAGE, LITERATURE, and HISTORY of GERMANY:
Marks, 375

GERMAN.
Tuesday, Thursday.

6. LANGUAGE, LITERATURE, and HISTORY of ITALY:
Marks, 375

ITALIAN.
Monday, Wednesday, and Friday.

7. MATHEMATICS, Pure and Mixed:
Marks, 1,250

MATHEMATICS—*Professor*, Robert Romer, B.A.
Junior Class: Monday, Wednesday, Friday.
Senior Class: Monday, Wednesday, Friday.

MATHEMATICAL PHYSICS—*Professor*, John England, M.A.
Tuesday, Thursday, and Saturday.

8. NATURAL SCIENCES: that is, Chemistry, Electricity, and Magnetism, Natural History, Geology, and Mineralogy:
Marks, 500

*** No Candidate will be allowed to be examined in more than three of the branches of knowledge included under this head, and the total (500 marks) may be obtained by adequate proficiency in any three.

CHEMISTRY—*Professor* Blyth, M.D.
Monday, Wednesday, and Friday.

EXPERIMENTAL PHYSICS (Electricity and Magnetism)—*Professor*, John England, M.A.
Monday, Wednesday, and Friday.

NATURAL HISTORY—*Professor*, J. R. Greene.
Monday, Wednesday, and Friday.

GEOLOGY and MINERALOGY—*Professor*, Robert Harkness, F.R.S.S.L. & E., F.G.S.
Monday, Wednesday, and Friday.

9. Moral Sciences: that is, Logic, Mental and Moral Philosophy: Marks, 500	Logic and Metaphysics—*Professor*, G. S. Read, M.A. Logic: Tuesday, Thursday, and Saturday. Metaphysics: Tuesday, Thursday, Saturday. Jurisprudence and Political Economy—*Professor*, Richard Horner Mills, M.A.	*Appendix A.* Special Prospectus of Courses for Competitive Examinations.

Courses of Instruction given in the College which are applicable to the Competitive Examination for Admission to the Royal Military Academy at Woolwich.

Subjects of Examination for the direct appointments to the Practical Class at Woolwich.	*Lectures on these Subjects in Queen's College, Cork.*
Mathematics (Pure): Marks, 2,500	*Professor*, Robert Romer, B.A. Junior Class: Monday, Wednesday, Friday. Senior Class: Monday, Wednesday, Friday.
Mathematics (Mixed):— Statics, Dynamics, Hydrostatics: Marks, 1,000	*Professor* England, M.A. Tuesday, Thursday, and Saturday.
Language of Ancient Rome: Marks, 1,500	*Professor*, Bunnell Lewis, M.A., F.S.A. Junior Class: Monday, Tuesday, Wednesday, Thursday.
Language of Ancient Greece: Marks, 1,500	*Professor*, John Ryall, LL.D. Junior Class: Monday and Friday, Wednesday and Thursday.
Language of France: Marks, 1,000	*Professor*, Raymond de Vericour, D. es. L. Monday, Wednesday, and Friday.
And Germany: Marks, 1,000	
English Language, Literature, Composition, History and Geography (Modern): Marks, 3,000	*Professor*, William Rushton, M.A. Tuesday, Thursday, and Saturday.
Experimental Sciences:— Chemistry: " } Marks, 1,000	*Professor*, John Blyth, M.D. Monday, Wednesday, and Friday.
Heat, Electricity, including Magnetism:	*Professor*, John England, M.A. Monday, Wednesday, and Friday.
Natural Sciences:— Mineralogy and Geology: Marks, 1,000	*Professor*, Robt. Harkness, F.R.S.S.L.& E., F.G.S.
Drawing, *i.e.*, Elementary Geometrical Drawing, including the use of Drawing Instruments: Marks, 500	*Professor*, Alexander Jack, M.A. Monday, Wednesday, and Friday.
Machinery, Architectural, Topographical, Landscape, or Figure Drawing: Marks, 500	Monday, Wednesday, and Friday.

Appendix A.

Special Prospectus of Courses for Competitive Examinations.

Competitive Examinations for admission are held in London twice a year, in January and July. They are conducted by Examiners appointed for the purpose, in the presence and under the superintendence of the Council of Military Education.

The Candidates must be between 16 and 19 years of age.

The admissions will be determined by the result of the examination, the subjects of which will be as follows, viz.:—

			Marks.
1. Mathematics,	Pure,	Section I. Arithmetic, Algebra, Euclid, Plane Trigonometry, .	2,000
		Section II. Spherical Trigonometry, elements of Co-ordinate Geometry, and of the Differential and Integral Calculus,* .	500
	Mixed:—Statics, Dynamics, and Hydrostatics, .		1,000

3,500

* *Syllabus of Examination in the Differential and Integral Calculus.*

DIFFERENTIAL CALCULUS.

The meaning of Differentiation.
The Differentiation of Elementary Functions of one independent variable.
The theorems of Taylor and Maclaurin, with their applications.
The theory of Maxima and Minima, with its applications.
The equations to the Tangents, Normals, and Asymptotes of Plane Curves.
The curvature of Plane Curves and their radii of curvature and evolutes.
The Differential Coefficients of the Arcs and Areas of Plane Curves to rectangular and polar Co-ordinates, and of the surfaces and volumes of solids of revolution.

INTEGRAL CALCULUS.

The meaning of Integration.
The Integration of Elementary Functions.
The Integration of Rational Fractions.
The determination of the lengths and areas of Plane Curves, and of the surfaces and volumes of solids of revolution.

2.	English Language and Composition, ...	1,000
3.	History of England, its Dependencies and Colonies, . .	1,000
4.	Geography (Modern), ...	1,000
5.	Classics, Latin Language, ...	1,500
	Classics, Greek ditto, ...	1,500
6.	French Language, ...	1,000
7.	German ditto, ...	1,000
8.	Hindustani ditto, ...	1,000

The examination in French, German, and Hindustani, will include writing from dictation.

9.	Experimental Sciences, *i.e.*, Chemistry, Heat, Electricity, including Magnetism, ...	1,000
10.	Natural Sciences, *i.e.*, Mineralogy and Geology, . .	1,000
11.	Drawing, Elementary Geometrical Drawing, including the use of Drawing Instruments, . . .	500
	Drawing, Free-hand Drawing of Machinery, Architectural, Topographical, Landscape, or Figure Subjects, .	500

No Candidate will be allowed to be examined in more than five subjects, of which one must be Mathematics; and no one who does not obtain at least 700 marks in Section I. of Pure Mathematics will be eligible for an appointment.

RESIDENCES.

There is no accommodation for the residence of students within the College, but it is provided by the Statutes that every Matriculated Student, being under the age of Twenty-one Years, shall reside, during the College Terms, with his parent or guardian, or with some relation or friend, to whose care he shall have been committed by his parent or guardian, or in one of the Boarding-houses licensed by the President of the College and arranged for the reception of students, who are then placed under the moral care and spiritual charge of the Deans of Residence of their respective creeds.

The Terms for Board and Lodging are generally at the rate of from £30 to £40 a-year.

DEANS of RESIDENCES.

Church of England, . . .	Rev. George Webster.
Presbyterian Church, . .	Rev. William Magill.
Wesleyan Communion, . . .	Rev. Wallace M'Mullen.
Non-Subscribing Presbyterian, .	Rev. W. Whitelegge, M.A.

Appendix A.

Special Prospectus of Courses for Competitive Examinations.

N.B.—Letters from persons desiring further information, to be addressed to the Registrar.

Signed,

By Order of the President,

ROBERT JOHN KENNY, *Registrar.*

APPENDIX B.

Appendix B.

Examination Papers for Scholarships.

SELECTION OF PAPERS USED AT THE SCHOLARSHIP EXAMINATIONS.

SENIOR SCHOLARSHIP.

LATIN.

Subject for a Latin essay :—

"Limæ labor et mora."

HORACE—*Ars Poetica.*

Translate into Latin Elegiacs :—

On old Ægina's rock, and Idra's isle,
The God of gladness sheds his parting smile;
O'er his own regions lingering, loves to shine,
Though there his altars are no more divine.
Descending fast the mountain shadows kiss
Thy glorious gulf, unconquer'd Salamis!
Their azure arches through the long expanse
More deeply purpled meet his mellowing glance,
And tenderest tints, along their summits driven,
Mark his gay course and own the hues of heaven;
Till, darkly shaded from the land and deep,
Behind his Delphian cliff he sinks to sleep.

B. LEWIS, *Professor.*

A.—HISTORY.

1. Whence did the feudal system originate?
2. What was the essential principle of a feudal relation?
3. Describe the change which caused allodial possessions, in France, to become feudal; and give the approximate date of that change.
4. Enumerate the classes of society among the Anglo-Saxons.
5. To what extent did William the Conqueror alter the constitution of the kingdom; and in what respects did Anglo-Norman feudalism differ from that of the Continent?
6. Estimate the influence of Magna Charta as an instrument of freedom.

Appendix B.

Examination Papers for Scholarships.

7. Trace the rise and progress of Parliamentary government in England.
8. What is meant by the Confirmation of the Charters (25 Edward I.), and what important provision was made by that Act?

B.—English Composition.

Write an essay on one or more of the following subjects:—

9. The poetry of Spenser.
10. The prose writing of Addison.
11. The poetry of Wordsworth.
12. The works of Thomas Carlyle.

William Rushton, *Professor.*

---

1. Required the locus of the vertex of a triangle, when the rectangle contained by the two sides is equal to that contained by the perpendicular and a given right line.
2. Prove that the shadow of any curve line, projected from a luminous point on a plane of indefinite extent, will be a curve of the same order.
3. Show how to expand $\log(1+e\cos x)$ into a series of cosines of successive multiples of x.
4. Find the content of the solid generated by an ellipse revolving round an axis perpendicular to the minor axis of the ellipse, and touching it at its extremity.
5. The sum of the squares of the reciprocals of the areas of the sections of an ellipsoid, made by three diametral planes at right angles to each other, is constant for all such systems of planes.
6. Determine the area of the base of a triangular pyramid in terms of the areas of the sides and the three vertical angles.
7. A sphere touches each of two right lines, which are inclined to each other but do not meet. Find the locus of its centre?
8. Find the length of the perpendicular from a given point upon a given plane. What theorems are at once suggested by the form of the resulting expression?
9. Give some account of the different measures of the curvature of surfaces.
10. Find the complete primitives of the differential equations—

(1) $(1-x^2)\frac{dy}{dx}+xy=a.$

(2) $\frac{d^2y}{dx^2}-2k\frac{dy}{dx}+k^2y=0.$

(3) $\frac{d^2y}{dx^2}-2k\frac{dy}{dx}+k^2y=e^x.$

11. Explain the theory of the singular solutions of a differential equation, and give an instance.
12. Find the orthogonal trajectory of the lemniscates defined by the equation—

$$(x^2+y^2)^2=a^2(x^2-y^2).$$

Chemistry.

1. What is the weight of 100 cubic inches of carbonic acid—

sp. gr. of $CO_2=1{\cdot}529$.

100 cubic inches of air at 30° B, and 60° F. weigh 30·935 grains.

2. If 1 lb. of steam at 212° be passed into 5 lbs. of ice at 32°, what will be the temperature of the mixture?—

Latent heat of steam = 964°; latent heat of water = 142°.

3. In the square prismatic system, the primitive octahedron is modified by the right terminal face and by the faces of the prism of the second class; give the notation of the faces of the compound form thus produced.

4. Write according to the binary theory of salts, the formula of a double salt. Describe shortly this theory and give the arguments for and against it.

5. Illustrate the theory of volumes by the hydrogen and oxygen compounds of nitrogen.

6. Give the mode of preparation, the composition, and the properties of the highest oxygen compounds of hydrogen, chlorine, and iodine.

7. Describe the Catalan process for the extraction of iron from its ores.

8. How are the protochloride and the bichloride of platinum prepared? Describe some of the compounds which are derived from the former by the action of ammonia.

9. Calculate the equivalent of cholalic acid from the following data:— 0·5235 grms. of cholalate of baryta give 0·1270 grms. of sulphate of baryta.

Equivalent of Ba=68·5.

10. Write the formulæ of the alcohols, ethers, aldehydes, and acids of the first four homologous series, $C_n H_{n+1}$. Describe the mode of preparation and the properties of the aldehyde of the second of the series.

N.B.—The examination in practical chemistry will take place in the laboratory.

J. Blyth, *Professor.*

Natural Philosophy.

1. A cylinder with its axis horizontal, is supported on an inclined plane by a beam, which rests upon it and has its lower extremity fastened to the plane by a hinge. Find the conditions of equilibrium?

2. Find the centre of gravity of the surface included between the arc of a parabola and the arc of a circle having the vertex of the parabola as centre, and passing through the focus.

3. One end of heterogeneous beam rests against a smooth vertical wall, find the curve on which, if the other end rests, there will be equilibrium in every position.

4. Find the law of variation of the unit of mass of a catenary that it may hang in the form of a semicircle.

5. A heavy particle is suspended at a distance of thirty inches from a horizontal axis; at what distance must another particle of double the weight be placed so that the two, rigidly connected, may together vibrate seconds?

6. A body falls from a given point towards a centre of force, the attraction at any distance r being $\frac{\mu}{r^{\frac{3}{2}}}$. Find the whole time of descent.

7. Prove the following formula for central forces, viz.:—

$$F = \frac{h^2}{r^3}\left(\frac{d^2}{d\theta^2}\left(\frac{1}{r}\right)+\frac{1}{r}\right).$$

8. A particle moves about a centre of force, its velocity at each point

Appendix R.

Examination Papers for Scholarships.

varies inversely as its distance from the centre of force: determine its path.

9. Show how to determine the points of the earth's surface at which a lunar eclipse will be visible.

10. How are the Heliocentric latitude and longtitude of a planet determined?

11. Investigate the law of atmospheric refraction.

12. Prove that the curve of aberration is an ellipse, and show how to determine its axes.

---

1. Explain Regnault's method of ascertaining the expansion of a gas at a constant volume, and investigate the necessary formula.

2. State Newton's law of cooling, and the limits within which it is applicable.

3. Give an outline of Tyndall's method of ascertaining the absorption of heat by gases, and state some of the most important results at which he arrived.

4. Explain the formation of the colours produced by placing a thin doubly refractory crystal between the analyzing and polarizing plates of a polariscope.

5. Describe and explain the phenomena of diffraction produced by gratings.

6. How did Newton explain the colours of thin plates?

7. In the electric condenser how do you calculate the condensing force?

8. If the *internal* resistance to a galvanic current be much greater than the external, show that the intensity of the current is not considerably increased by increasing the number of plates of the battery.

9. How is the intensity of the earth's magnetism at different points of its surface ascertained?

10. Explain the method of ascertaining the refractive index of a gas.

Geology and Physical Geography.

1. By what means are igneous rocks distinguished from those of a Plutonic nature?

2. Describe the nature and phenomena of cleavage.

3. In what position and of what nature are the earliest traces of land plants?

4. What are the characteristic fossils of the lower portion of the old red sandstone?

5. What is the position of the marl slate, and what is its continental equivalent?

6. What is the nature, and what are the fossil contents of the Portland dirt-bed?

7. Where are the Miocene strata most extensively developed, and what fossil mammals are characteristic thereof?

8. Describe the phenomena and products of mud volcanoes.

9. Describe the phenomena and products of ordinary volcanoes.

Robert Harkness, *Professor.*

Logic.

1. Discuss the various definitions of logic, and state which you prefer and why.
2. How many degrees of inductive definition are there, and how does the last differ from deductive?
3. Enumerate the categories of Kant. How do they differ from those of Aristotle?
4. Examine Mill's doctrine of the function and value of the syllogism.
5. What is a law of nature in its strictest sense?
6. What are fallacies of simple inspection? Give some of the more striking instances of their occurrence.

Metaphysics.

1. Define metaphysics.
2. How is it related to logic and to psychology?
3. Explain Descarte's method, and the principal truths which he proposed to establish by it.
4. By what arguments does Berkeley establish the subjectivity of the secondary qualities of matter?
5. Compare Hume and Mill's account of the idea of cause.
6. How far is Hume a disciple of Locke?
7. Give Hart's account of the idea of time.
8. What is Reid's classification of the mental faculties? Is it satisfactory?
9. What is the real value of Reid's appeal to common sense?
10. Criticise Sir W. Hamilton's doctrine of perception.
11. How do sensation and perception differ, according to Sir W. Hamilton?
12. Mention the names of the principal supporters of the sensational school, and give a very brief account of their differences from each other.

G. J. Read, *Professor.*

Modern Languages.

Translate into French, German, or Italian :—

The grave is the ordeal of true affection. It is there that the divine passion of the soul manifests its superiority to the instinctive impulse of mere animal attachment. The latter must be continually refreshed and kept alive by the presence of its object; but the love that is seated in the soul can live on long remembrance. The mere inclinations of sense languish and decline with the charms which excited them, and turn with disgust from the dismal precincts of the tomb; but it is thence that truly spiritual affection rises purified from every sensual desire, and returns, like a holy flame, to illumine and sanctify the heart of the survivor. The sorrow for the dead is the only sorrow from which we refuse to be divorced.

The place he had chosen for his retreat was the monastery of St. Justus, in the province of Estramadura. It was seated in a vale of no great extent, watered by a small brook, and surrounded by rising grounds, covered with lofty trees. From the nature of the soil, as well as the temperature of the climate, it was esteemed the most healthful and delicious situation in Spain. Some months before his resignation he had sent an architect thither to add a new apartment to the monastery, for his accommodation; but he gave strict orders that the style of the building should be such as suited his present situation, rather than his former

Appendix B. Examination Papers for Scholarships.

dignity. It consisted only of six rooms; four of them in the form of friars' cells, with naked walls; the other two each twenty feet square, were hung with brown cloth, and furnished in the most simple manner. They were all on a level with the ground, with a door on one side into a garden, of which Charles himself had given the plan, and which he had filled with various plants, intending to cultivate them with his own hands.—*Robertson.*

1. State the cases when the subjunctive mood is required in French; compare its rules with those of the Latin. Give examples.

2. Give an account of the life and works of one of the following authors:—Corneille, Racine, Molière.

3. State what has been the influence of Shakespeare on the literatures of France and Germany.

4. Say what you know of the origin and formation of the French and Italian languages.

5. Mention the most brilliant period in the history of Italian literature.

6. State what you know of the influence of Goethe and Schiller on German literature and on the nations of Germany.

R. DE VERICOUR, *Professor.*

LITERARY SCHOLARSHIPS OF THE SECOND AND THIRD YEARS.

LATIN.

Translate in as few words as possible :—

JUVENAL, III., 67.

Rusticus ille tuus sumit trechedipna, Quirine,
Et ceromatico fert niceteria collo.
Hic alta Sicyone, ast hic Amydone relicta,
Hic Andro, ille Samo, hic Trallibus aut Alabandis,
Esquilias dictumque petunt a vimine collem,
Viscera magnarum domuum dominique futuri.
Ingenium velox, audacia perdita, sermo
Promptus et Isaeo torrentior. Ede, quid illum
Esse putes? quem vis hominem, secum attulit ad nos:
Grammaticus, rhetor, geometres, pictor, aliptes,
Augur, schoenobates, medicus, magus: omnia novit.

Translate into Latin hexameters :—

The city which thou seest, no other deem
Than great and glorious Rome, queen of the earth;
So far renown'd, and with the spoils enrich'd
Of nations; there the Capitol thou seest
Above the rest lifting his stately head
On the Tarpeian rock, her citadel
Impregnable, and there Mount Palatine,
Th' imperial palace, compass huge and high
The structure, skill of noblest architects,
With gilded battlements, conspicuous far,
Turrets and terraces, and glitt'ring spires.

Translate into Latin prose :—

He had reason to tremble. On the throne of the world he found himself without a friend, and even without an adherent. The

guards themselves were ashamed of the prince whom their avarice had persuaded them to accept; nor was there a citizen who did not consider his elevation with horror, as the last insult on the Roman name. The nobility, whose conspicuous station, and ample possessions, exacted the strictest caution, dissembled their sentiments, and met the affected civility of the emperor with smiles of complacency, and professions of duty. But the people, secure in their numbers and obscurity, gave a free vent to their passions.

B. Lewis, *Professor.*

English Language and Literature.

1. Give some account of Layamon's *Brut*, and the Ormulum.
2. What were the Chronicles of Robert of Gloucester, and Robert de Brunne?
3. State the principal events in the life of Edmund Spenser.
4. What is the plot of the Faerie Queene?
5. What was the *Polyolbion* of Michael Drayton?
6. Enumerate the principal dramas of Ben Jonson.
7. To what classes do the following poets belong:—John Donne, Francis Beaumont, John Fletcher, Phineas Fletcher, Giles Fletcher, George Wither, Francis Quarles, and George Herbert?
8. Explain these passages—particularly the words and phrases in italics:—

(*a*) Since Cassius first did whet me against Cæsar
I have not slept.
Between the acting of a dreadful thing
And the *first motion;* all the *interim* is
Like a *phantasma*, or a hideous dream:
The genius and the mortal instruments
Are then in council; and the state of a man,
Like to a little kingdom, suffers then
The nature of an insurrection.

(*b*) O Conspiracy!
Sham'st thou to show thy dangerous brow by night,
When evils are most free? O, then, by day,
Where wilt thou find a cavern dark enough
To mask thy monstrous visage? Seek none, Conspiracy:
Hide it in smiles and affability;
For, if thou path, thy native semblance on,
Not Erebus itself were dim enough
To hide thee from prevention.

(*c*) *If it were done, when 'tis done, then 'twere well*
It were done quickly. If the assassination
Could *trammel up the consequence*, and catch,
With his surcease, success; that but this blow
Might be *the be-all and the end-all* here,
But here, upon this bank and shoal of time,
We'd jump the life to come.

(*d*) We fail!
But screw your courage to the sticking place
And we'll not fail. When Duncan is asleep,
(Whereto the rather shall his day's hard journey

Appendix B.
Examination Papers for Scholarships.

Soundly invite him) his two chamberlains
Will I with wine and wassel so convice,
That memory, the warder of the brain,
Shall be a fume, and the receipt of reason
A limbeck only.

(*e*) I have lived long enough; *my way of life*
Is fall'n into the sear, the yellow leaf;
And that which should accompany old age,
As honour, love, obedience, troops of friends,
I must not look to have; but, in their stead,
Curses, not loud but deep, mouth-honour, breath,
Which the poor heart would fain deny, and dare not.

What various readings have been proposed in these lines?—

(1) For, if thou path, thy native semblance on.

(2) My way of life
Is fallen into the sear, the yellow leaf.

WILLIAM RUSHTON, *Professor.*

SCIENCE SCHOLARSHIPS OF THE SECOND AND THIRD YEARS.

MATHEMATICS.

1. Investigate any different forms of the equation of a straight line referred to rectangular co-ordinates, and show their equivalence.

2. Find the straight line which passes through the point of intersection of two given straight lines and makes a given angle with another given straight line.

3. From the extremities of the parameter of a given parabola two normals are drawn; find where they intersect and the area of the trapezium which they and the tangents at the same points form.

4. Find the semi-axes and centre of the ellipse whose equation is $9y^2 + 16y - 5x + 8x^2 = 0$.

5. Find the equation of the straight line bisecting the angle between two given straight lines.

6. Trace the variations in the nature of the locus represented by

$$Ax^2 + Bxy + Cy^2 = 1,$$

as B undergoes all possible changes from negative to positive infinity. Does the equation ever represent one, and does it ever represent two straight lines?

7. Find the locus of a point, the sum of the squares of whose distances from two of the angular points of a triangle exceeds the square of its distance from the other angular point by a fixed quantity.

8. Show how to determine the length of the common chord of two circles whose equations are given.

9. Find the area of the triangle contained by the straight lines

$$y = x - 3,\ y = 2x - \tfrac{3}{2},\ y = 3x - 1.$$

10. Find on the circumference of a given circle a point, the sum of the squares of whose distances from two given points shall be constant.

11. In what case does the solution of the last problem become indefinite, constituting what in geometry is usually called a porism.

12. Investigate formulæ for the transformation of co-ordinates, and apply them to the problem of the reduction of the general equation of the second degree.

---

1. If x, y, z, be the pth, qth, and rth terms of an harmonic series, show that

$$\frac{q-r}{x}+\frac{r-p}{y}+\frac{p-q}{z}=0.$$

2. Given $x^3+ax^2+bx+c=0$, find the sum of the squares of the roots, and also the sum of the squares of their reciprocals.

3. Find the radii of the circles described in and about a given triangle, and prove that half the reciprocal of their product is equal to

$$\frac{1}{ab}+\frac{1}{bc}+\frac{1}{ca}$$

a, b, c being the sides of the triangle.

4. State some cases in which cubic and biquadratic equations can be solved by quadratics.

5. Solve the equations—

$$x^2+xy+y^2=19;$$
$$3x^2-2xy+4y^2=36.$$

Explain in what way the solution of equations is facilitated when their first sides are homogeneous.

6. Find all the solutions in positive whole numbers of the equation

$$17x+7y=310.$$

7. Explain the theory of fractional indices.

8. Assuming the binomial theorem for an integer, prove it for a fractional index.

9. Prove that whatever angles are represented by a, b, c the equation

$$\frac{\sin^2 a}{\sin(a-b)\sin(a-c)}+\frac{\sin^2 b}{\sin(b-c)\sin(b-a)}+\frac{\sin^2 c}{\sin(c-a)\sin(c-b)}=1$$

holds true.

10. Express the cosines of half the angles of a triangle in terms of the sides, and show from the expressions that the sum of two sides cannot be less than the third side.

11. Resolve $\sin\theta$ into its factors, and prove that

$$\frac{\pi}{2}=\frac{2^2 4^2 6^2 \; ad\; inf.}{3^2 5^2 7^2 \; ad\; inf.}$$

LITERARY SCHOLARSHIPS OF THE FIRST YEAR.

LATIN.

1. What is the great rule for the sequence of tenses in Latin.

2. Trace the course of the rivers Padus, Rhodanus, Matrona, and Albis.

3. Give the date of the foundation of Rome, the arrival of Pyrrhus in Italy, the beginning of the first Punic War, and the battle of Actium.

4. What are the perfects and supines of *pasco*, *findo*, *fingo*, *incutio*, and *curro*?

5. Give the rules for the Sapphic metre, with examples from Horace.

Appendix B.

Examination Papers for Scholarships.

Re-translate into Latin :—

See, says he, the horror of these times; when all Sicily was coming out to meet me, the Prætor who had often felt the rage of the same Tribune, and in the same cause, would not suffer me to come into the island. What shall I say? That Virgilius, such a citizen, and such a man, had lost all benevolence, all remembrance of our common sufferings, all his piety, humanity, and faith towards me? No such thing; he was afraid, how he should singly sustain the weight of that storm, which had overpowered our joint forces.

B. Lewis, *Professor.*

A.—English Language.

1. Give the derivation of the following words, explaining their formation, and stating the languages from which they come :—*hopefulness, helplessness, livelihood, fidelity, ignominy, superficial, diagnosis, peripatetic.*

2. Analyse the following sentence :—

"I was taught in my youth that to know how to wait is one secret of success."

3. What classes of English words are derived from Anglo-Saxon?

4. What language was introduced into England by the Normans?

5. Explain the following sentences :—

(*a*) They were stoned to death, as a *document* unto others.
(*b*) Wicked men are not *secure*, even when they are safe.
(*c*) That *mediterranean* city, Coventry.

6. Show, from words like *sheep, deer, trout, news, alms, who, this,* that number, gender, and case are very imperfectly marked in English.

7. What case is "me" in "methinks?"

B.—History.

8. Give some account of the legislation of Solon.

9. State the leading events in the Conspiracy of Catiline.

10. Narrate briefly the incidents of the Civil War between Cæsar and Pompey.

William Rushton, *Professor.*

SCIENCE SCHOLARSHIPS OF THE FIRST YEAR.

Mathematics.

1. Show how to divide a given straight line into parts, having a given ratio to each other.

2. The squares of the diagonals of a trapezium are together double the squares of the two lines joining the bisections of the opposite sides.

3. Given the sum of four numbers in geometrical progression equal a, and the sum of their squares equal to b^2, find the numbers.

4. Solve the following equations :—

$$\frac{x+2}{x-1}-\frac{7}{3}=\frac{3}{2}\left(\frac{1\frac{1}{3}-\frac{x}{3}}{x}\right)$$

$$\frac{1}{(a-x)^{\frac{1}{2}}}+\frac{1}{(a+x)^{\frac{1}{2}}}=\frac{2\sqrt{a}}{a^2-x^2}.$$

5. Solve the simultaneous equations

$$x+y+z=8\,;$$
$$x-2y+z=-4\,;$$
$$x^2+y^2+z^2=26.$$

In what cases do simultaneous equations *not* admit of the definite determination of the unknown quantities?

6. Supposing a French metre to be equal to 39·36 English inches, find the least number of metres that is expressible exactly in English inches.

7. Define logarithms, and prove the fundamental theorems relating to them. If $\log 2 = \cdot 30103$ and $\log 3 = \cdot 47712$ find $\log 648$.

8. Find the sums of the series

$$1+2x+4x^2+8x^3, \text{ \&c. to } n \text{ terms};$$
$$2+8x+24x^2+64x^3+\text{\&c. to } n-1 \text{ terms}.$$

What is meant by the sum of a series *ad infinitum*—is it properly a sum or a limit?

9. Investigate a rule for finding the value of a recurring decimal. Ex: ·2343434, &c.

10. Prove that the difference of the squares of any two odd numbers is divisible by 8.

11. Prove the following theorems of trigonometry, viz.:—

$$\sin A+\sin B=\sin\tfrac{1}{2}(A+B)\cos\tfrac{1}{2}(A-B)\,;$$
$$\cos B-\cos A=2\sin\tfrac{1}{2}(A+B)\sin\tfrac{1}{2}(A-B)\,;$$
$$\frac{\sin A+\sin B}{\sin A-\sin B}=\frac{\tan\tfrac{1}{2}(A+B)}{\tan\tfrac{1}{2}(A-B)}.$$

12. Calculate the values of

$$\sin 30^\circ,\ \sec 60^\circ,\ \tan 120^\circ,\ \cot 135^\circ,$$

and show by a construction what different arcs may have the same sine.

13. Prove the theorem

$$\tan\frac{A-B}{2}=\frac{a-b}{a+b}\cot\frac{C}{2}$$

and explain its use.

14. Find the sum of the series

$$\cos a+\cos(a-2b)+\cos(a-4b)+, \text{ \&c. to } n \text{ terms}.$$

ENGINEERING SCHOLARSHIPS OF THE SECOND AND THIRD YEARS.

Mathematics.

1. Define a spherical triangle. Mention the limitations of the sum of the sides and of the sum of the angles. How are these demonstrated?

2. Prove the fundamental theorem of spherical trigonometry:—

$$\cos c=\cos a\cos b+\sin a\sin b\cos C\,;$$

What does it become when $C=0$, 90°, and 180°?

3. If two spherical triangles have two sides and the contained angle of the one respectively equal to two sides and the contained angle of the other, the triangles shall be equal in every respect.

Appendix B. Examination Papers for Scholarships.

4. Every spherical triangle is equal in area to the portion of the spherical surface bounded by two halves of great circles, which make with each other an angle equal to $\frac{A+B+C}{2} - 90°$ where A, B, C are the angles of the triangle.

5. If a, b be the sides, and c the hypothenuse of a right angled spherical triangle, prove that

$$\cos c = \cos a \cos b.$$

Hence, calculate c when $a = 60°$, $b = 75°$.

6. From the theorem of the last question prove that

$$\sin^2 \tfrac{1}{2} c = \sin^2 \tfrac{1}{2} a \cos^2 \tfrac{1}{2} b + \cos^2 \tfrac{1}{2} a \sin^2 \tfrac{1}{2} b.$$

Show what this becomes when the spherical triangle becomes plane.

7. Prove that in a spherical triangle

$$\tan \tfrac{1}{2} A = \sqrt{\frac{\sin(s-b)\sin(s-c)}{\sin s \sin(s-a)}}.$$

8. Prove that in a spherical triangle

$$\sin A \sin b - \sin B \sin a = 0;$$
$$\sin B \sin c - \sin C \sin b = 0;$$
$$\sin C \sin a - \sin A \sin c = 0.$$

9. From the last theorems show that in a spherical triangle

$$(\sin^2 A + \sin^2 B + \sin^2 C)(\sin^2 a + \sin^2 b + \sin^2 c) = (\sin A \sin a + \sin B \sin b + \sin C \sin c)^2.$$

10. Apply spherical trigonometry to the problem of the reduction of an angle to the horizon.

11. Explain and demonstrate the different practical modes of determining the third side of a triangle, when the two other sides and their included angle are given.

ENGINEERING SCHOLARSHIPS OF THE THIRD YEAR.

MATHEMATICS.

1. Solve the algebraic equations—

$$2x + 3y = a$$
$$\frac{x^3}{27} + \frac{y^3}{8} = b^3.$$

2. Find approximately a root of the equations—

$$x^3 - 4x^2 + 7x - 130 = 0,$$

Explain the principle on which methods of approximation rest.

3. Investigate an expression for the content of a middle segment of a sphere in terms of the radii of the bounding circles and their mutual distance.

4. Investigate an expression for the length of a perpendicular from a given point upon a given straight line $\frac{x}{a} + \frac{y}{b} = 1$.

5. Prove that in an ellipse the focal distances of any point on the curve make equal angles with the tangent.

6. Find the equation of a curve defined by the property that the distance of any point upon it from a given point is always proportional to the square of its distance from another given point.

7. Given the sun's declination and altitude, and the latitude of the place of observation, show how to determine the time of day.

8. State and prove the criteria for distinguishing, when possible, the cases of apparent ambiguity in the solution of spherical triangles.

9. Investigate an expression for the radius of a circle inscribed in a given spherical triangle.

10. State the theory of the maxima and minima of functions of one variable. Apply it to determine the maximum value of the function $m \sin\theta + n \cos\theta$.

11. Find the radius of curvature of the curve whose equation is $y = mx + nx^2$, and show where it becomes a maximum or minimum.

12. Integrate the differentials—

$$\frac{dx}{x^3 - a^3}, \quad \frac{xdx}{\sqrt{a^4 + x^4}}, \quad \frac{dx}{x\sqrt{2ax - x^2}}.$$

13. Find by integration the solid contents of the paraboloid, ellipsoid, and hyperboloid of revolution.

Civil Engineering.

1. How would you test the correctness of the work in a closed traverse, and supposing an error to exist below the prescribed limit, how would you deal with it?

2. How would you lay out and survey contour lines?

3. In passing from one chained line of a survey to the next, which is supposed to start from *near* its extremity, how would you lay out your offsets?

4. In laying out a curve with the Theodolite you wish to shift your instrument to a new station on the curve, how would you set it up there?

5. In laying out a curve with the Theodolite an obstacle occurs which almost immediately interrupts your view of the stations of the curve, what expedient would you adopt?

6. Draw the development of the soffit of an oblique bridge.

7. Explain why it becomes necessary constantly to change the value of the angle of the coursing joint in an oblique bridge.

8. Describe the Attic base and Grecian Ionic capital.

9. Describe the capitals (giving sketches) used in the early English style.

N.B.—The Students were also examined practically in the use of the instruments.

Alexander Jack, *Professor.*

Natural Philosophy.

1. One end of a uniform beam rests on a rough horizontal plane, the other presses against a smooth vertical wall, determine its inclination when on the point of slipping.

2. State and prove the rule for the composition of couples in the same or parallel planes.

3. A weight of 9 lbs. draws a weight of 3 lbs. over a fixed pulley, if the cord be cut at the end of four seconds, how long afterwards will the second weight continue to ascend?

4. Determine the line of quickest descent from a point to a straight line.

5. A body is projected in a given direction with a given velocity, find the maximum range on a given plane.

Appendix B.

Examination Papers for Scholarships.

6. Describe some form of compensation pendulum.
7. What is meant by the dynamical equivalent of heat?
8. How is the index of refraction of a transparent substance ascertained?
9. Describe some form of reflecting telescope.
10. What is the limit to the charge of a Leyden jar?
11. How can gunpowder be ignited by means of frictional, and how by means of Voltaic electricity?
12. How is it shown that one current of electricity can induce another?

ENGINEERING SCHOLARSHIPS OF THE SECOND YEAR.

Geometrical Drawing.

1. A horizontal cylinder being cut obliquely to its axis by a vertical plane, construct the projection of the section on a vertical plane parallel to its axis.
2. Draw the development of the end of the cylinder so cut.
3. Prove that the perspectives of parallel lines will, if produced, meet in a point,
4. If a line lie in a vertical plane perpendicular to the plane of the picture and make a given angle θ with the picture, find its vanishing point.
5. Explain clearly in words without a diagram :—Firstly, how to find the point of intersection of three planes given by their traces; and secondly, how, through a point given by its projection, to draw a straight line which shall meet two straight lines given by their projections.
6. Given the traces of two planes, required the projections of their intersection. Your solution or answer is to include clear explanations.
7. In the accompanying diagram in which xy is the ground line, find the traces of the plane which passes through a straight line ab, $a'b'$, and is parallel to another straight line, cd, $c'd'$. You are to return the diagram sheet with your work done on it.
8. Required the shadow cast on the horizontal plane of projection by a small rectangular block or model representing a brick according to any convenient reduced scale which you may have or may construct for yourself, the brick being 9 ins. × 4½ ins. × 3 ins., and being laid on the horizontal plane of projection with one of its greatest faces in contact with that plane, and with a face 9 ins. × 3 ins., making an angle of 30° with the vertical plane of projection. You are to specify distinctly by projections or otherwise, the direction in which you mean the rays to fall; and that direction is to be one in common use in the projection of shadows.
9. Given a natural scale, construct geometrically, with rule and compass, the corresponding isometric scale; and prove the relation between the length of a line and its projection measured along an isometric axis.
10. Describe any method with which you may be acquainted for forming an isometrical protractor; and show the position in which it should be placed with regard to the isometric axis when used for determining angles.
11. Given the rise and span of a segmental arch, describe any method, approximate or true, for finding points on the curve without knowing the centre.

12. (*a*) The representative fraction of a map is $\frac{1}{126720}$, required the number of furlongs to one inch. *Appendix B.* Examination Papers for Scholarships.

(*β*) The scale of a map is 2 chains to one inch; if this be diminished to one-third its size in area, what will be its scale?

ALEXANDER JACK, *Professor.*

SCHOLARSHIPS IN MEDICINE AND ENGINEERING.

CHEMISTRY.

N.B.—The name and faculty of each student to be written at the top of each sheet of paper.

1. Convert—10° of Reaumur into the corresponding scales of Fahrenheit and Centigrade.

2. How are binary compounds distinguished from ternary by the termination of their names? Give examples in symbols of neutral and of basic ternary compounds according to the oxygen acid theory.

3. Explain shortly the binary theory of salts, and give examples of simple and compound salt radicals and basyls.

4. Explain the meaning of the term allotropism. Illustrate by examples taken from non-metallic bodies.

5. Give the mode of preparation and the properties of iodine and of its hydrogen compound.

6. Give the mode of preparation and the properties of fluoride of silicon.

7. Write the formulæ of the oxygen compounds of manganese. Give the preparation and the properties of manganic and permanganic acids.

8. Mercury, copper, zinc, alumina, lime, and potash, are in the same solution, separate them from each other; give the characteristic reaction for each.

9. Ten grains of the silver salt of an organic acid give on combustion 6·467 grains of metallic silver; what is the equivalent of the hydrated acid.

Ag = 108.

10. Write the formulæ of the acids of the first four homologous series $C_n H_{n+1}$. Describe the mode of preparation and the properties of the acid of the first of the series.

J. BLYTH, *Professor.*

MEDICAL SCHOLARSHIP OF THE FOURTH YEAR.

PRACTICAL ANATOMY.

1. Describe the origin, course, terminating branches, and anastomoses of the obturator artery; then state the varieties, with respect to its origin, and the important surgical relations which it maintains under such circumstances.

2. Describe the origin, course, relations, and branches of the great gluteal artery.

3. Describe accurately the interarticular cartilages and crucial ligaments of the knee joint.

4. Describe the cremaster muscle.

5. Describe the tunica vaginalis and tunica albuginea testis.

6. What are the parts to be removed, in succession, in order to display

Appendix B.

Examination Papers for Scholarships.

the obliqui capitis and recti postici muscles? What are their attachments, relations, and actions?

7. Describe the transverse fissure of the brain.

8. Describe the lumbar plexus of nerves, and mention its branches?

ANATOMY AND PHYSIOLOGY.

1. Give an outline of the experiments performed by M. Bernard on the cervical portion of the sympathetic nerve, and state the conclusions derivable from them.

2. What explanation would you afford as to the cause of the first inspiration at birth?

3. Describe the origin, course, and distribution of the glosso-pharyngeal nerve, and state its function.

4. Describe the semilunar ganglia of the sympathetic nerves and their several communications.

5. What is the bone which undergoes the greatest number of changes, so as to present characters peculiar to the different periods of life?

6. Describe the restiform bodies of the medulla oblongata, and state their connexions with other parts of the brain and cord.

7. Describe the fourth ventricle of the brain and its communication with the third.

8. Referring to the importance of ventilation, state the amount of cubic space which you would desire to allot to every patient in the wards of an hospital.

J. H. CORBETT, *Professor.*

SURGERY.

1. Describe when inflammation may be considered as a destructive process, and when as a productive process.

2. Describe, pathologically, the affection called noma.

3. Upon what is pyæmia supposed to depend; and what are its predisposing causes, as recognised in the habits and constitution of the patient, or in the conditions by which he is surrounded?

4. What symptoms are supposed to indicate cancer of the breast a local disease; and what a constitutional disease?

5. How would you reduce a dislocation of the shoulder downwards (or into the axilla) of two months' duration?

6. How would you distinguish superficial from deep-seated inflammation of the eye?

7. How are fractures of bones reduced; and what means are used to prevent a return of their displacement?

8. What are the different methods of performing amputations; how would you amputate the thigh, at its centre, by the circular method: and how by the double flap? Describe the advantages and disadvantages of each method.

WILLIAM TANNER, *Professor.*

MATERIA MEDICA AND THERAPEUTICS.

1. What changes can be effected in the composition of the blood by therapeutical agents?

2. What changes do medicinal substances undergo in the mouth? what in the stomach?

3. Contrast the therapeutical value of arsenic with that of quinine in the treatment of intermittent fever.

4. When are diuretics, when diaphoretics, to be had recourse to for the removal of dropsical effusions?

5. Give a general outline of the classification, action, and uses of Tonics.

6. Compare the therapeutical uses of hyosciamus with those of opium.

PURCELL O'LEARY, *Professor.*

MIDWIFERY.

1. Enumerate the different structures in the generative organs, both internal and external, of the male of the human subject, which are the analogues of those in the female; giving shortly your reasons in each case for considering them so.

2. What is the commonly received theoretical duration of pregnancy in the human female? What is the average *observed* duration under ordinary circumstances; and what, when counted from a single known coïtus? Do these last instances give the real duration of pregnancy; and if not, why not? If a woman's confinement should not take place till eleven months after her last menstruation, how would you explain the fact?

3. A woman, nearly come to the full period of her second pregnancy, has had severe pains during the last twelve hours. A vaginal examination discovers the sphincter to be in its usual condition; the vagina roomy, and with little secretion; os uteri soft and yielding, but high up. What is your view of the case; and what treatment would you propose?

4. From what causes in the progress of a labour hitherto natural, is the forehead found to descend unduly? By what signs is the irregularity to be recognised; and how is it remedied? In case of not succeeding, what course would you adopt?

5. In an arm presentation, the membranes have recently given way; the right hand of the child has descended into the vagina, with its palm facing towards the pubic symphysis of the mother. Detail the steps of your operation to turn the child; stating also which hand you would introduce, and why?

6. When, and in what cases of hemorrhage is the use of the plug indicated; and how would you use it? Describe its mode of action, and the benefits to be expected from its use.

J. R. HARVEY, A.B., M.D., *Professor.*

PATHOLOGY.

1. Explain the formation of gall-stones—their composition and shape.

2. What is the alteration of the urine in gout and in rheumatism? What is the effect of each of these diseases on the joints affected?

3. What are emboli and phlebolites? Explain their formation, and the injuries resulting from them.

4. Abscesses arise in the lungs in one case of phlebites—in the liver in another—why? What is the difficulty of explaining the existence of abscesses in the superficial parts of the body in a case of phlebites?

5. How does secondary cancer arise?

6. Describe tubercle as it appears in the membranes of the brain, in the lungs, and in the lymphatic glands.

7. Describe the appearances of the bronchial tubes and surrounding lung in so-called corrbosis of the lung.

Appendix B.

Examination Papers for Scholarships.

8. What is the natural cure in aneurism and in hemorrhages?

9. Anasarca confined to one thigh, or to both the lower extremities—or to the face and neck—or to the whole surface of the body—depends in each case on different causes—state these causes.

D. C. O'Connor, *Professor.*

MEDICAL SCHOLARSHIPS OF THE THIRD YEAR.

Anatomy and Physiology.

1. What is the composition of the expired air, as contrasted with the atmospheric?
2. By what means is the temperature of the body maintained and regulated?
3. Mention the relative proportions of fibrin and albumen, in the normal state of the blood.
4. How has the substance termed protein been obtained?
5. What experiments have been instituted, with a view to determine the functions of the superior and inferior laryngeal nerves?
6. Describe the superior maxillary nerve, and trace the nervous twigs to the teeth of the upper jaw.
7. Describe the olfactory nerves, and state how their function has been determined.
8. Describe the mucous membrane of the stomach, and the peptic glands or follicles.

Practical Anatomy.

1. Describe the several meningeal arteries.
2. Describe the attachments and relations of the falx cerebri and the tentorium cerebelli.
3. How are the venæ magnæ Galeni formed, and where do they terminate?
4. Describe the cavernous sinuses, and mention the several parts in relation with them.
5. Describe the attachments and relations of the flexor pollicis longus muscle.
6. Describe the spermatic artery, and mention the course of the vas deferens.
7. Describe the attachments and relations to muscles, vessels, and nerves of the supinator radii longus muscle.
8. Describe the arteria innominata.

J. H. Corbett, *Professor.*

Materia Medica.

1. Give the tests by which quinine, cinchonine, and quinidine, are distinguished from each other, particularizing the simplest and most certain.
2. Compare the physiological action of quinine with that of iron.
3. Describe the physical and chemical properties of iodide of potassium, its adulterations and their tests, physiological action, therapeutical applications, dose and administration.
4. Same of acetate of lead.
5. Mention the ordinary adulterations of pulvis ferri, and the modes of detecting them.
6. Give the Latin name, natural family, active principle, action, uses, preparations, doses, and modes of administration of henbane.

Purcell O'Leary, *Professor.*

MEDICAL SCHOLARSHIPS OF THE SECOND YEAR.

Anatomy and Physiology.

1. State the composition of the liquor sanguinis.
2. Contrast the elastic with the contractile property.
3. Describe the relations, structure, and functions of the œsophagus.
4. Mention the properties of white fibrous tissue, and the places in which we find it.
5. Describe the microscopic features of yellow fibrous tissue.
6. State the position, structure, and function of the ileo-cæcal valve.
7. Describe the investment of the bones, its nature and offices.
8. Mention the ordinary classification of the joints, and give an example of each form of articulation.

J. H. Corbett, *Professor.*

Physics.

1. A heavy body is suspended by a fixed point. State the conditions under which its equilibrium will be stable, unstable, or neutral.
2. How is the second law of motion proved by means of Attwood's machine?
3. What is the weight of aqueous vapour existing in 1,000 cubic feet of air, the elastic force of the vapour being ·55 inches of mercury, its temperature 62°, and absolute density ·622? A cubic foot of air at temperature 60°, and pressure 30 inches, weighs 536 grains.
4. Six fluid ounces of alcohol, specific gravity ·936, being mixed with 10 fluid ounces, specific gravity ·827, what is the specific gravity of the mixture?
5. Explain the principle of the stereoscope.
6. What is the distinction between uniaxal and biaxal crystals?
7. Describe the method of using the gold-leaf electroscope, and explain the principle of its action.
8. How is electricity derived from heat?

Botany.

1, 2, 3. Compare the structure of the fruit with that of the flower from which it has been developed, in the orders *Cruciferæ*, *Umbelliferæ*, and *Compositæ*, respectively.

4. Describe, with precision and brevity, the flower of any Thalamiflorous plant with which you are well acquainted, stating its several characters in their proper order.

5. Define the terms 'pinnate,' 'trifoliate,' 'dentate,' 'stipulate,' and 'verticillate,' as applied to leaves.

Zoölogy.

1. Briefly compare the digestive apparatus of Mammals with that of Birds.
2. What families of hoofed quadrupeds have the toes even in number?
3. Point out the homologies of the paired locomotive appendages in a Spider, Scorpion, or any of the higher *Arachnida*.
4. Give a general account of the structural relations of the nervous system in the typical *Mollusca*.
5. Define the class *Infusoria*.

J. Reay Greene, *Professor.*

Appendix C.

Selection of Papers used at the Sessional Examinations.

APPENDIX C.

Selection of Papers used at the Sessional Examinations.

Greek.—Third Year.

Translate :—

(A). Plato—*The Republic*, Book VI., 509.

Ὥσπερ τοίνυν γραμμὴν δίχα τετμημένην λαβὼν ἄνισα τμήματα, πάλιν τέμνε ἑκάτερον τμῆμα ἀνὰ τὸν αὐτὸν λόγον, τό τε τοῦ ὁρωμένου γένους καὶ τὸ τοῦ νοουμένου, καί σοι ἔσται σαφηνείᾳ καὶ ἀσαφείᾳ πρὸς ἄλληλα ἐν μὲν τῷ ὁρωμένῳ τὸ μὲν ἕτερον τμῆμα εἰκόνες. λέγω δὲ τὰς εἰκόνας πρῶτον μὲν τὰς σκιάς, ἔπειτα τὰ ἐν τοῖς ὕδασι φαντάσματα καὶ ἐν τοῖς ὅσα πυκνά τε καὶ λεῖα καὶ φανὰ ξυνέστηκε, καὶ πᾶν τὸ τοιοῦτον, εἰ κατανοεῖς. Ἀλλα κατανοῶ. Τὸ τοίνυν ἕτερον τίθει, ᾧ τοῦτο ἔοικε, τά τε περὶ ἡμᾶς ζῶα καὶ πᾶν τὸ φυτευτὸν καὶ τὸ σκευαστὸν ὅλον γένος. Τίθημι, ἔφη. Ἦ καὶ ἐθέλοις ἂν αὐτὸ φάναι, ἦν δ' ἐγώ, διηρῆσθαι ἀληθείᾳ τε καὶ μή, ὡς τὸ δοξαστὸν πρὸς τὸ γνωστόν, οὕτω τὸ ὁμοιωθὲν πρὸς τὸ ᾧ ὡμοιώθη ; Ἔγωγ', ἔφη, καὶ μάλα. Σκόπει δὴ αὖ καὶ τὴν τοῦ νοητοῦ τομὴν ᾗ τμητέον. Πῇ ; Ἧι τὸ μὲν αὐτοῦ τοῖς τότε τμηθεῖσιν ὡς εἰκόσι χρωμένη ψυχὴ ζητεῖν ἀναγκάζεται ἐξ ὑποθέσεων, οὐκ ἐπ' ἀρχὴν πορευομένη, ἀλλ' ἐπὶ τελευτήν, τὸ δ' αὖ ἕτερόν [τὸ] ἐπ' ἀρχὴν ἀνυπόθετον ἐξ ὑποθέσεως ἰοῦσα καὶ ἄνευ ὧνπερ ἐκεῖνο εἰκόνων αὐτοῖς εἴδεσι δι' αὐτῶν τὴν μέθοδον ποιουμένη.

1. Comment on any peculiarities of construction in this passage, and suggest any variations in the reading.
2. Distinguish between *τμῆμα* and *τομή*, *γράμμα* and *γραμμή*.

Translate :—

(B). Aristophanes—*Ranæ*.

ὦ Νυκτὸς κελαινοφαὴς
ὄρφνα, τίνα μοι δύστανον ὄνειρον
πέμπεις ἐξ ἀφανοῦς, Ἀΐδα πρόπολον,
ψυχὰν ἄψυχον ἔχοντα, μελαίνας
Νυκτὸς παῖδα,
φρικώδη δεινὰν ὄψιν,
μελανονεκνείμονα,
φόνια φόνια δερκόμενον,
μεγάλους ὄνυχας ἔχοντα.
ἀλλά μοι ἀμφίπολοι λύχνον ἅψατε
κάλπισί τ' ἐκ ποταμῶν δρόσον ἄραται, θερμετε δ' ὕδωρ,
ὡς ἂν θεῖον ὄνειρον ἀποκλύσω.
ἰὼ πόντιε δαῖμον,
τοῦτ' ἐκεῖν'· ἰὼ ξύνοικοι,
τάδε τέρα θεάσασθε. τὸν ἀλεκτρυόνα μου συναρπάσασα
φρούδη Γλύκη.
Νύμφαι ὀρεσσίγονοι,
ὦ Μανία, ξύλλαβε.
ἐγὼ δ' ἃ τάλαινα
προσέχουσ' ἔτυχον ἐμαυτῆς

ἔργοισι, λίνου μεστὸν ἄτρακτον
εἰειειειλίσσουσα χεροῖν,
κλωστῆρα ποιοῦσ', ὅπως
κνεφαῖος εἰς ἀγορὰν
φέρουσ' ἀποδοίμαν·
ὁ δ' ἀνέπτατ' ἀνέπτατ ἐς αἰθέρα
κουφοτάταις πτερύγων ἀκμαῖς·
ἐμοὶ δ' ἄχε' ἄχεα κατέλιπε,
δάκρυα δάκρυά τ' ἀπ' ὀμμάτων
ἔβαλον ἔβαλον ἀ τλάμων.
ἀλλ', ὦ Κρῆτες, Ἴδας τέκνα,
τὰ τόξα τε λαβόντες ἐπαμύνατε,
τὰ κῶλά τ' ἀμπάλλετε, κυκλούμενοι τὴν οἰκίαν.
ἅμα δὲ Δίκτυννα παῖς Ἄρτεμις καλὰ
τὰς κυνίσκας ἔχουσ' ἐλθέτω
διὰ δόμων πανταχῆ.
σὺ δ', ὦ Διός, διπύρους ἀνέχουσα
λαμπάδας ὀξυτάταιν χειροῖν, Ἑκάτα, παράφηνόν
ἐς Γλύκης, ὅπως ἂν
εἰσελθοῦσα φωράσω.

1. What peculiarities of Euripides are ridiculed in this *monody*? Explain this term, and translate and explain εἶτ' ἀνέτρεφον μονῳδίαις, Κηπιφῶντα μιγνύς.

2. What appears to have been the origin of Greek comedy, and among what people did it first assume a regular shape? Give a brief account of its first introduction into Attica, and of the successive stages through which it passed until its final extinction.

Translate :—

(C). EURIPIDES—*Bacchæ*, vv. 519–555.

Ἀχελῴου θύγατερ, στρ.
πότνι εὐπάρθενε Δίρκα,
σὺ γὰρ ἐν σαῖς ποτε παγαῖς
τὸ Διὸς βρέφος ἔλαβες,
ὅτε μηρῷ πυρὸς ἐξ ἀ-
θανάτου Ζεὺς ὁ τεκὼν ἥρ-
πασέ νιν, τάδ' ἀναβοάσας·
ἴθι, Διθύραμβ', ἐμὰν ἄρ-
σενα τάνδε βᾶθι νηδύν·
ἀναφαίνω σε τόδ', ὦ Βάκ-
χιε, Θήβαις ὀνομάζειν.
σὺ δέ μ', ὦ μάκαιρα Δίρκα,
στεφανηφόρους ἀπωθεῖ
θιάσους ἔχουσαν ἐν σοί.
τί μ' ἀναίνει; τί με φεύγεις;
ἔτι, ναὶ τὰν βοτρυώδη
Διονύσου χάριν οἴνας,
ἔτι σοι τοῦ Βρομίου μελήσει.

Appendix C.

Selection of Papers used at the Sessional Examinations.

ἀναφαίνει χθόνιον ἀντ.
γένος, ἐκφύν τε δράκοντός
ποτε, Πενθεύς, ὃν Ἐχίων
ἐφύτευσε χθόνιος,
ἀγριωπὸν τέρας, οὐ φῶ-
τα βρότειον, φόνιον δ' ὥσ-
τε γίγαντ' ἀντίπαλον θεοῖς·
ὃς ἐμὲ βρόχοισι, τὰν τοῦ
Βρομίου, τάχα ξυνάψει,
τὸν ἐμὸν δ' ἐντὸς ἔχει δώ-
ματος ἤδη θιασώταν
σκοτίαισι κρυπτὸν εἱρκταῖς.
ἐσορᾷς τάδ', ὦ Διὸς παῖ
Διόνυσε, σοὺς προφήτας
ἐν ἀμίλλαισιν ἀνάγκας;
μόλε, χρυσῶπα τινάσσων 553
ἀνὰ θύρσον κατ' Ὄλυμπον,
φονίου δ' ἀνδρὸς ὕβριν κατάσχες.

1. (*a*) Explain the expressions Ἀχελῴου θύγατερ and ἐν σαῖς παγαῖς ἔλαβες. (*b*) Discuss the derivation of Διθύραμβος. (*c*) Explain the construction of ἀναφαίνω σε τόδ' Θήβαις ὀνομάζειν. (*d*) Translate vv. 553-4 with the various readings, τινάσσων, ἄνα,—κατ' Ὀλύμπου.

2. Explain the mythological allusions in the extract.

GREEK.—SECOND YEAR.

Translate:—

(A). PLATO—*Protagoras.*

τίνα οὖν ἀμήχανος συμφορὰ καθαιρεῖ ἐν πλοίου ἀρχῇ; δῆλον ὅτι οὐ τὸν ἰδιώτην· ὁ μὲν γὰρ ἰδιώτης ἀεὶ καθῄρηται· ὥσπερ οὖν οὐ τὸν κείμενόν τις ἂν καταβάλοι, ἀλλὰ τὸν μὲν ἑστῶτά ποτε καταβάλοι ἄν τις, ὥστε κείμενον ποιῆσαι, τὸν δὲ κείμενον οὔ, οὕτω καὶ τὸν εὐμήχανον ὄντα ποτὲ ἀμήχανος ἂν συμφορὰ καθέλοι, τὸν δὲ ἀεὶ ἀμήχανον ὄντα οὔ· καὶ τὸν κυβερνήτην μέγας χειμὼν ἐπιπεσὼν ἀμήχανον ἂν ποιήσειε, καὶ γεωργὸν χαλεπὴ ὥρα ἐπελθοῦσα ἀμήχανον ἂν θείη, καὶ ἰατρὸν ταὐτὰ ταῦτα. τῷ μὲν γὰρ ἐσθλῷ ἐγχωρεῖ κακῷ γενέσθαι, ὥσπερ καὶ παρ' ἄλλου ποιητοῦ μαρτυρεῖται τοῦ εἰπόντος

αὐτὰρ ἀνὴρ ἀγαθὸς τοτὲ μὲν κακός, ἄλλοτε δ' ἐσθλός·

τῷ δὲ κακῷ οὐκ ἐγχωρεῖ γενέσθαι, ἀλλ' ἀεὶ εἶναι ἀνάγκη· ὥστε τὸν μὲν εὐμήχανον καὶ σοφὸν καὶ ἀγαθὸν ἐπειδὰν ἀμήχανος συμφορὰ καθέλῃ, οὐκ ἔστι μὴ οὐ κακὸν ἔμμεναι· σὺ δὲ φῄς, ὦ Πιττακέ, χαλεπὸν ἐσθλὸν ἔμμενai· τὸ δ' ἐστὶ γενέσθαι μὲν χαλεπόν, δυνατὸν δὲ [ἐσθλόν], ἔμμεναι δὲ ἀδύνατον·

πράξας [μὲν] γὰρ εὖ πᾶς ἀνὴρ ἀγαθός,
κακὸς δ' εἰ κακῶς.

τίς οὖν εἰς γράμματα ἀγαθὴ πρᾶξίς ἐστι, καὶ τίς ἄνδρα ἀγαθὸν ποιεῖ εἰς γράμματα; δῆλον ὅτι ἡ τούτων μάθησις. τίς δὲ εὐπραγία ἀγαθὸν ἰατρὸν ποιεῖ; δῆλον ὅτι ἡ τῶν καμνόντων τῆς θεραπείας μάθησις. κακὸς δὲ κακῶς· τίς οὖν ἂν κακὸς ἰατρὸς γένοιτο; δῆλον ὅτι ᾧ πρῶτον μὲν ὑπάρχει ἰατρῷ

εἶναι, ἔπειτα ἀγαθῷ ἰατρῷ· οὗτος γὰρ ἂν καὶ κακὸς γένοιτο· ἡμεῖς δὲ οἱ ἰατρικῆς ἰδιῶται οὐκ ἄν ποτε γενοίμεθα κακῶς πράξαντες οὔτε ἰατροὶ οὔτε τέκτονες οὔτε ἄλλο οὐδὲν τῶν τοιούτων· ὅστις δὲ μὴ ἰατρὸς ἂν γένοιτο κακῶς πράξας, δῆλον ὅτι οὐδὲ κακὸς ἰατρός.

1. Point out the general distinction between *οὐ* and *μή*, and between the constructions with *οὐ μή* and *μὴ οὐ*; illustrating by reference to the foregoing extract.

Translate into Greek :—

(*a*) "No one is free who does not control himself."
(*b*) "Clearchus then scarcely escaped being stoned."
(*c*) "The wicked you will certainly never make better."

2. (*a*) Explain the formula *τὸ δ' ἔστι*. (*b*) *κακὸς δ' εἰ κακῶς—κακὸς δὲ κακῶς*. How do you account for the variation here? (*c*) What two words are opposed to *ἰδιώτης*, in the two senses in which it is used in this passage?

Translate :—

(B). EURIPIDES—*Bacchæ*, vv. 1035–1073.

ἐπεὶ θεράπνας τῆσδε Θηβαίας χθονὸς
λιπόντες ἐξέβημεν Ἀσωποῦ ῥοάς,
λέπας Κιθαιρώνειον εἰσεβάλλομεν,
Πενθεύς τε κἀγώ, δεσπότῃ γὰρ εἰπόμην,
ξένος θ' ὃς ἡμῖν πομπὸς ἦν θεωρίας.
πρῶτον μὲν οὖν ποιηρὸν ἵζομεν νάπος,
τά τ' ἐκ ποδῶν σιγηλὰ καὶ γλώσσης ἄπο
σώζοντες, ὡς ὁρῷμεν οὐχ ὁρώμενοι.
ἦν δ' ἄγκος ἀμφίκρημνον, ὕδασι διάβροχον,
πεύκαισι συσκιάζον, ἔνθα Μαινάδες
καθῆντ' ἔχουσαι χεῖρας ἐν τερπνοῖς πόνοις.
αἱ μὲν γὰρ αὐτῶν θύρσον ἐκλελοιπότα
κισσῷ κομήτην αὖθις ἐξανέστεφον·
αἱ δ' ἐκλιποῦσαι ποικίλ' ὡς πῶλοι ζυγὰ
βακχεῖον ἀντέκλαζον ἀλλήλαις μέλος.
Πενθεὺς δ' ὁ τλήμων θῆλυν οὐχ ὁρῶν ὄχλον
ἔλεξε τοιάδ'· ὦ ξέν', οὗ μὲν ἕσταμεν,
οὐκ ἐξικνοῦμαι Μαινάδων ὅσσοις μόθων·
ὄχθον δ' ἐπεμβὰς ἢ ἐλάτην ὑψαύχενα
ἴδοιμ' ἂν ὀρθῶς Μαινάδων αἰσχρουργίαν.
τοὐντεῦθεν ἦδη τοῦ ξένου [τι] θαῦμ' ὁρῶ·
λαβὼν γὰρ ἐλάτης οὐράνιον ἄκρον κλάδον
κατῆγεν, ἦγεν, ἦγεν εἰς μέλαν πέδον·
κυκλοῦτο δ' ὥστε τόξον ἢ κυρτὸς τροχὸς
τόρνῳ γραφόμενος, περιφοράν ἕλκει δρόμου·
ὡς κλῶν' ὄρειον ὁ ξένος χεροῖν ἄγων
ἔκαμπτεν εἰς γῆν, ἔργματ' οὐχὶ θνητὰ δρῶν.
Πενθέα δ' ἱδρύσας ἐλατίνων ὄζων ἔπι,
ὀρθὸν μεθίει διὰ χερῶν βλάστημ' ἄνω
ἀτρέμα, φυλάσσων μὴ ἀναχαιτίσειέ νιν.

Appendix C.

Selection of Papers used at the Sessional Examinations.

ὀρθὴ δ' ἐς ὀρθὸν αἰθέρ' ἐστηρίζετο
ἔχουσα νώτοις δεσπότην ἐφήμενον.
ὤφθη δε μᾶλλον ἢ κατεῖδε Μαινάδας·
ὅσον γὰρ οὔπω δῆλος ἦν θάσσων ἄνω,
καὶ τὸν ξένον μὲν οὐκέτ' εἰσορᾶν παρῆν,
ἐκ δ' αἰθέρος φωνή τις, ὡς μὲν εἰκάσαι
Διόνυσος, ἀνεβόησεν· ὦ νεάνιδες,
ἄγω τὸν ὑμᾶς κἀμὲ τἀμά τ' ὄργια
γέλων τιθέμενον· ἀλλὰ τιμωρεῖσθέ νιν.

1. Explain the following constructions :—(*a*) *τὰ τ' ἐκ ποδῶν σιγηλα καὶ γλῶσσης ἀπὸ σώζοντες.* (*b*) *ποιηρὸν ἴζομεν νάπος.* (*c*) *θύρσον κίσσῳ κωμήτην ἐξανίστεφον.* (*d*) *οὐκ ἐξιχνοῦμαι Μαινάδων ὅσον μόθων.* (*e*) *ὅσον οὔπω δῆλος ἦν.* (*f*) *δέδοκται τλήμονες φυγαί*, v. 1344.
2. Notice a various reading in the first line of this extract.
3. Explain its topographical allusions.

GREEK.—FIRST YEAR.

Translate :—

(A). DEMOSTHENES—*Olynthiac Orations*, B (Γ), *θ'*.

καίτοι σκέψασθε, ὦ ἄνδρες Ἀθηναῖοι, ἅ τις ἂν κεφάλαια εἰπεῖν ἔχοι τῶν τ' ἐπὶ τῶν προγόνων ἔργων καὶ τῶν ἐφ' ὑμῶν. ἔσται δὲ βραχὺς καὶ γνώριμος ὑμῖν ὁ λόγος· οὐ γὰρ ἀλλοτρίοις ὑμῖν χρωμένοις παραδείγμασιν, ἀλλ οἰκείοις, ὦ ἄνδρες Ἀθηναῖοι, εὐδαίμοσιν ἔξεστι γενέσθαι. ἐκεῖνοι τοίνυν, οἷς οὐκ ἐχαρίζονθ' οἱ λέγοντες οὐδ' ἐφίλουν αὐτοὺς ὥσπερ ὑμᾶς οὗτοι νῦν, πέντε μὲν καὶ τετταράκοντα ἔτη τῶν Ἑλλήνων ἦρξαν ἑκόντων, πλείω δ' ἢ μύρια τάλαντα εἰς τὴν ἀκρόπολιν ἀνήγαγον, ὑπήκουε δὲ ὁ ταύτην τὴν χώραν ἔχων αὐτοῖς βασιλεύς, ὥσπερ ἐστὶ προσῆκον βάρβαρον Ἕλλησι, πολλὰ δὲ καὶ καλὰ καὶ πεζῇ καὶ ναυμαχοῦντες ἔστησαν τρόπαια αὐτοὶ στρατευόμενοι, μόνοι δὲ ἀνθρώπων κρείττω τὴν ἐπὶ τοῖς ἔργοις δόξαν τῶν φθονούντων κατέλιπον. ἐπὶ μὲν δὴ τῶν Ἑλληνικῶν ἦσαν τοιοῦτοι· ἐν δὲ τοῖς κατὰ τὴν πόλιν αὐτὴν θεάσασθε ὁποῖοι ἔν τε τοῖς κοινοῖς καὶ ἐν τοῖς ἰδίοις. δημοσίᾳ μὲν τοίνυν οἰκοδομήματα καὶ κάλλη τοιαῦτα καὶ τοσαῦτα κατεσκεύασαν ἡμῖν ἱερῶν καὶ τῶν ἐν τούτοις ἀναθημάτων, ὥστε μηδενὶ τῶν ἐπιγιγνομένων ὑπερβολὴν λελεῖφθαι· ἰδίᾳ δ' οὕτω σώφρονες ἦσαν καὶ σφόδρα ἐν τῷ τῆς πολιτείας ἤθει μένοντες ὥστε τὴν Ἀριστείδου καὶ τὴν Μιλτιάδου καὶ τῶν τότε λαμπρῶν οἰκίαν εἴ τις ἄρα οἶδεν ὑμῶν ὁποία ποτ' ἐστὶν, ὁρᾷ τῆς τοῦ γείτονος οὐδὲν σεμνοτέραν οὖσαν· οὐ γὰρ εἰς περιουσίαν ἐπράττετο αὐτοῖς τὰ τῆς πόλεως, ἀλλὰ τὸ κοινὸν αὔξειν ἕκαστος ᾤετο δεῖν.

1. Name the following tenses, and explain their formation :—*ἀνήγαγον, ἔστησαν, κατέλιπον, θεάσασθε, λελεῖφθαι, αὔξειν, ᾤετο, κατεσκεύασαν.*
2. Parse the following words :—*εὐδαιμόσιν, ἔτη, πλείω, προσῆκον, βάρβαρον, Ἕλλησι, κρείττω, πεζῇ, δημοσίᾳ.*
3. Derive *παράδειγμα, εὐδαίμων, τρόπαιον, προσήκειν, σώφρων, περιουσία.*
4. Explain the historical allusions in the extract.

Translate :—

(B). EURIPIDES—*Ion*, vv. 247–274.

ΚΡΕΟΥΣΑ. *ὦ ξένε, τὸ μὲν σὸν οὐκ ἀπαιδεύτως ἔχει*
εἰς θαύματ' ἐλθεῖν δακρύων ἐμῶν πέρι·
ἐγὼ δ' ἰδοῦσα τούσδ' Ἀπόλλωνος δόμους
μνήμην παλαιὰν ἀνεμετρησάμην τινά· 250
οἵκοι δὲ τὸν νοῦν ἔσχον ἐνθάδ' οὖσά περ.
ὦ τλήμονες γυναῖκες· ὦ τολμήματα
θεῶν. τί δῆτα; ποῖ δίκην ἀνοίσομεν,
εἰ τῶν κρατούντων ἀδικίαις ὀλούμεθα;
ΙΩΝ. *τί χρῆμ' ἀνερεύνητα δυσθυμεῖ, γύναι;* 255
ΚΡ. *οὐδέν· μεθῆκα τόξα· τἀπὶ τῷδε δὲ*
ἐγώ τε σιγῶ καὶ σὺ μὴ φρόντιζ' ἔτι.
ΙΩΝ. *τίς δ' εἶ; πόθεν γῆς ἦλθες; ἐκ ποίου πατρὸς*
πέφυκας; ὄνομα τί σε καλεῖν ἡμᾶς χρεών;
ΚΡ. Κρέουσα μέν μοι τοὔνομ', ἐκ δ' Ἐρεχθέως 260
πέφυκα, πατρὶς γῆ δ' Ἀθηναίων πόλις.
ΙΩΝ. *ὦ κλεινὸν οἰκοῦσ' ἄστυ γενναίων τ' ἄπο*
τραφεῖσα πατέρων, ὡς σε θαυμάζω, γύναι.
ΚΡ. *τοσαῦτα κεὐτυχοῦμεν, ὦ ξέν', οὐ πέρα.*
ΙΩΝ. *πρὸς θεῶν ἀληθῶς, ὡς μεμύθευται βροτοῖς,* 265
ΚΡ. *τί χρῆμ' ἐρωτᾷς, ὦ ξέν'; ἐκμαθεῖν θέλω.*
ΙΩΝ. *ἐκ γῆς πατρός σου πρόγονος ἔβλαστεν πατήρ;*
ΚΡ. Ἐριχθόνιός γε· *τὸ δὲ γένος μ' οὐκ ὠφελεῖ.*
ΙΩΝ. *ἦ καί σφ' Ἀθάνα γῆθεν ἐξανείλετο;*
ΚΡ. *εἰς παρθένους γε χεῖρας, οὐ τεκοῦσά νιν.* 270
ΙΩΝ. *δίδωσι δ', ὥσπερ ἐν γραφῇ νομίζεται;*
ΚΡ. Κέκροπός γε σώζειν παισὶν οὐχ ὁρώμενον.
ΙΩΝ. *ἤκουσα λῦσαι παρθένους τεῦχος θεᾶς.*
ΚΡ. *τοιγὰρ θανοῦσαι σκόπελον ἥμαξαν πέτρας.*

1. Explain the following constructions :—(*a*) *τὸ σὸν οὐκ ἀπαιδεύτως ἔχει.* (*b*) *ποῖ δίκην ἀνοίσομεν.* (*c*) *τι χρῆμα*, v. 255. (*d*) *τἀπὶ τῷδε* (*e*) *πόθεν γῆς.* (*f*) *ὄνομα τί σε καλεῖν.*

2. Accentuate the following words, and state your reasons :—*τιμα* (3rd pers. pres. tense)—*ἐτιμα*—*ἀφικου*—*εἰδεναι*—*κατα* (=*καὶ εἶτα*).

3. State accurately the laws of Iambic trimeter verse.

DR. RYALL, *Professor.*

EXTRA AND THIRD YEAR'S LATIN CLASS.

Translate into Latin lyrics :—

When Music, heavenly maid, was young,
While yet in early Greece she sung,
The Passions oft, to hear her shell,
Throng'd around her magic cell,
Exulting, trembling, raging, fainting,
Possess'd beyond the muse's painting;
By turns they felt the glowing mind
Disturb'd, delighted, rais'd, refin'd.

Appendix C.

Selection of Papers used at the Sessional Examinations.

Till once, 'tis said, when all were fir'd,
Fill'd with fury, rapt, inspir'd,
From the supporting myrtles round
They snatch'd her instruments of sound,
And as they oft had heard apart
Sweet lessons of her forceful art,
Each, for madness rul'd the hour,
Would prove his own expressive power.

Extra and Third Year's Latin Class.

Translate:—

Cicero—*Ad Atticum*, I., 18.

Est autem C. Herennius quidam tribunus pl., quem tu fortasse ne nosti quidem—tametsi potes nosse: tribulis enim tuus est et Sextus, pater eius, numos vobis dividere solebat:—is ad plebem P. Clodium traducit, idemque fert, ut universus populus in campo Martio suffragium de re Clodii ferat. Hunc ego accepi in senatu, ut soleo, sed nihil est illo homine lentius. Metellus est consul egregius et nos amat, sed imminuit auctoritatem suam, quod habet dicis causa promulgatum illud idem de Clodio. Auli autem filius, o di immortales! quam ignavus ac sine animo miles! quam dignus, qui Palicano, sicut facit, os ad male audiendum cotidie praebeat! Agraria autem promulgata est a Flavio, sane levis eadem fere, quae fuit Plotia. Sed interea πολιτικὸς ἀνὴρ οὐδ' ὄναρ quisquam inveniri potest. Qui poterat, familiaris noster—sic est enim: volo te hoc scire—Pompeius togulam illam pictam silentio tuetur suam. Crassus verbum nullum contra gratiam. Caeteros iam nosti: qui ita sunt stulti, ut amissa re publica piscinas suas fore salvas sperare videantur.

Plautus—*Captivi*, Act III., Sc. I., v. 9.

Ilicet parasiticae arti maxumam in malam crucem:
Ita iuuentus iam ridiculos inopes ab se segregat.
Nil morantur iam Lacones imi supselli uiros,
Plagipatidas, quibus sunt uerba sine penu et pecunia.
Eos requirunt, qui, lubenter quom ederint, reddant domi.
Ipsi opsonant, quae parasitorum ante erat prouincia.
Ipsi de foro tam aperto capite ad lenones eunt,
Quam in tribu sontis aperto capite condemnant reos,
Neque ridiculos iam terunci faciunt. Sese omnes amant.
Nam uti dudum hinc abii, accessi ad adulescentis in foro:
"Saluete" inquam: "quo imus una ad prandium?" atque illi tacent.
"Quis ait 'hoc' aut quis profitetur?" inquam: quasi muti silent,
Neque me rident, "ubi cenamus [hodie]?" inquam atque illi abnuont.

1. Name some of the Greek authors whom Cicero quotes in this book, and give an account of their writings.

2. Relate the life of Cicero between the end of his consulate and his return from exile.

3. Give the names of the extant plays of Plautus. What are the archaic forms of *sum* used by him?

4. How was Salus represented?

5. Narrate briefly the history of Samos, with references to the ancient authorities for this subject.

Translate into Latin :—

A friend exaggerates a man's virtues, an enemy inflames his crimes. A wise man should give a just attention to both of them, so far as they may tend to the improvement of one and the diminution of the other. Plutarch has written an essay on the benefits which a man may receive from his enemies; and, among the good fruits of enmity, mentions this in particular, that by the reproaches which it casts upon us we see the worst side of ourselves, and open our eyes to several blemishes and defects in our lives and conversations which we should not have observed without the help of such ill-natured monitors.

SENIOR LATIN CLASS.

Translate :—

TACITUS—*Annals*, Book II., c. 71.

Caesar paulisper ad spem erectus, dein fesso corpore, ubi finis aderat, adsistentes amicos in hunc modum adloquitur: "si fato concederem, justus mihi dolor etiam adversus deos esset, quod me parentibus liberis patriae intra iuventam praematuro exitu raperent. Nunc scelere Pisonis et Plancinae interceptus ultimas preces pectoribus vestris relinquo: referatis patri ac fratri, quibus acerbitatibus dilaceratus, quibus insidiis circumventus miserrimam vitam pessima morte finierim. Si quos spes meae, si quos propinquus sanguis; etiam quos invidia erga viventem movebat, inlacrimabunt, quondam florentem et tot bellorum superstitem muliebri fraude cecidisse. Erit vobis locus querendi apud senatum, invocandi leges. Non hoc praecipuum amicorum munus est, prosequi defunctum ignavo questu, sed quae voluerit meminisse, quae mandaverit exsequi. Flebunt Germanicum etiam ignoti: vindicabitis vos, si me potius quam fortunam meam fovebatis."

1. Draw the character of Germanicus.
2. Give an account of the Duilian column and inscription.
3. Describe accurately the situation of Myrina, Sardis, Artaxata, Perinthus, and Colophon.
4. Tacitus mentions the assistance afforded by Tiberius to the cities of Asia which had suffered from an earthquake. How may his statements be corroborated?
5. Explain some allusions to the history of Republican Rome which occur in this book.

Translate into Latin :—

That opinion of yours, which is injurious to us, must be rooted up out of your mind. That Rupilius, who for so many years had sat at the helm of the state, had fled away secretly. Let those, therefore, to whom we all owe our lives, be buried with military honours. Will, therefore, that Lucilius, who is prepared for his fate, whatever it may be, fly away secretly? You are, therefore, driving from the helm of the state those to whom both you and I owe our lives. The general who had so often saved the state, was suffered by his fellow-citizens to be deprived of burial.

Ovid describes the palace of Fame as situated in the very centre of the universe, and perforated with so many windows and avenues as gave her the sight of every thing that was done in the heavens, in the earth, and

Appendix C.
Selection of Papers used at the Sessional Examinations.

in the sea. The structure of it was contrived in so admirable a manner, that it echoed every word which was spoken in the whole compass of nature; so that the palace, says the poet, was always filled with a confused hubbub of low dying sounds, the voices being almost spent and worn out, before they arrived at this general rendezvous of speeches and whispers.

Translate :—

VIRGIL—*Æneid* IX., 126–145.

At non audaci Turno fiducia cessit;
Ultro animos tollit dictis, atque increpat ultro :
"Troianos haec monstra petunt; his Iuppiter ipse
Auxilium solitum eripuit, non tela neque ignes
Exspectant Rutulos. Ergo maria invia Teucris,
Nec spes ulla fugae; rerum pars altera adempta est;
Terra autem in nostris manibus; tot milia, gentes
Arma ferunt Italae. Nil me fatalia terrent,
Si qua Phryges prae se iactant, responsa deorum :
Sat fatis Venerique datum, tetigere quod arva
Fertilis Ausoniae Troës. Sunt et mea contra
Fata mihi, ferro sceleratam exscindere gentem
Coniuge praerepta; nec solos tangit Atridas
Iste dolor, solisque licet capere arma Mycenis.
Sed periisse semel satis est; peccare fuisset
Ante satis, penitus modo non genus omne perosos
Fèmineum. Quibus haec medii fiducia valli
Fossarumque morae, leti discrimina parva,
Dant animos. At non viderunt moenia Troiae
Neptuni fabricata manu considere in ignis?"

1. What is your estimate of the character of Virgil as a poet?
2. Give the date of his birth and death.
3. Explain accurately the words *bulla*, *phaleræ*, *perculsus*, *crater*, and *sublustris*.
4. Mention and explain some various readings in this book.

Translate into Elegiac verse :—

When Neptune, towering o'er her Adrian wave,
Saw Venice rise, and Ocean's rage enslave.
"Boast as thou wilt of Rome," to Jove he cried,
"Her Rock Tarpeian, and thy Mars her guide!
Yet own, though Tiber lure thee from the seas,
That Mortals reared those walls—Immortals these!

I stood, methought, betwixt earth, seas, and skies,
The whole creation open to my eyes :
In air self-balanc'd hung the globe below,
Where mountains rise, and circling oceans flow;
Here naked rocks and empty wastes were seen;
There towery cities and the forests green.

JUNIOR LATIN CLASS.

Translate :—

HORACE—*Satires*, I., 2.

Ambubaiarum collegia, pharmacopolae,
Mendici, mimae, balatrones, hoc genus omne
Maestum ac sollicitum est cantoris morte Tigelli :
Quippe benignus erat. Contra hic, ne prodigus esse
Dicatur metuens, inopi dare nolit amico,
Frigus quo duramque famem depellere possit.
Hunc si perconteris, avi cur atque parentis
Praeclaram ingrata stringat malus ingluvie rem,
Omnia conductis coëmens obsonia nummis :
Sordidus atque animi quod parvi nolit haberi,
Respondet. Laudatur ab his, culpatur ab illis.

LIVY, XXII., 4.

Hannibal quod agri est inter Cortonam urbem Trasumenumque lacum omni clade belli pervastat, quo magis iram hosti ad vindicandas sociorum iniurias acuat. Et iam pervenerant ad loca nata insidiis, ubi maxime montes Cortonenses Trasumenus subit. Via tantum interest perangusta, velut ad id ipsum de industria relicto spatio ; deinde paulo latior patescit campus ; inde colles adsurgunt. Ibi castra in aperto locat, ubi ipse cum Afris modo Hispanisque consideret : Baliares ceteramque levem armaturam post montes circumducit ; equites ad ipsas fauces saltus, tumulis apte tegentibus, locat, ut ubi intrassent Romani, obiecto equitatu clausa omnia lacu ac montibus essent.

1. Trace the route of Horace from Rome to Brundisium.
2. Explain the words *sextarius, pœtus, scutica, emunctus*, and *lutulentus*.
3. Name the most celebrated contemporaries of Horace.
4. Describe the organization of the Roman legion.
5. Give the chief rules for the use of the moods in the *oratio obliqua*, with examples from Livy.

Translate into Latin elegiacs :—

Therefore when I shall have been changed into a thin shade,
And black embers above shall cover my white bones,
Before my pile let Neæra come with her long hair uncombed,
And sad let her weep before my pile.
But let her come accompanied by the grief of her dear mother—
Let this mourn for her son-in-law, let that mourn for her husband.

Translate into Latin :—

That you may be able to die courageously, obey the laws of nature.
He was pretending to be mad, that he might not be banished.
He cries out that it is all over with the army.
You promised that you would send me all the news of the town.
That you may die courageously, live virtuously.
He praises Caius, that he may himself be praised by Caius.

B. LEWIS, *Professor.*

Appendix C.

Selection of Papers used at the Sessional Examinations.

ENGLISH LANGUAGE.

1. What evidence is there to prove the original Celtic occupation of Great Britain and Ireland?

2. For how many years was Britain a province of the Roman Empire?

3. Give a brief account of the Anglo-Saxon invasion.

4. In what parts of the island did the Danes principally settle?

5. What language was introduced into England by the Normans?

6. To what dates was the French language used in schools and in legal pleadings?

ANALYSIS OF SENTENCES.

7. Define the terms *subject nominative*, *predicate nominative*, and *predicate verb.*

Analyse these sentences:—

(*a*) James was killed by the bursting of a cannon.
(*b*) He sat under the shadow of the old yew-tree.
(*c*) The citizens made Whittington mayor.
(*d*) I do not fear to meet danger.
(*e*) He came to see me.

8. Point out any grammatical points worth notice in the following passages:—

(*f*) You ought not walk.
(*g*) And that same eye, whose bend doth awe the world,
Did lose his lustre.
(*h*) He plucked me ope his doublet.
(*l*) And therefore think him as a serpent's egg.

9. Paraphrase and explain the following passages:—

(*m*) Between the acting of a dreadful thing
And the first motion, all the interim is
Like a phantasma, or a hideous dream;
The genius and the mortal instruments
Are then in council: and the state of a man,
Like to a little kingdom, suffers then
The nature of an insurrection.

(*n*) But do not stain
The even virtue of an enterprise,
Nor the insuppressible mettle of our spirits,
To think that or our cause or our performance
Did need an oath: when every drop of blood,
That every Roman bears and nobly bears,
Is guilty of a several bastardy,
If he do break the smallest particle
Of any promise that hath passed from him.

(*p*) Here wast thou bayed, brave heart;
Here didst thou fall, and here thy hunters stand,
Signed in thy spoil, and crimsoned in thy death.

(*q*) Then burst his mighty heart,
And, in his mantle muffling up his face,
Even at the base of Pompey's statue,
Which all the while ran blood, great Cæsar fell.

ENGLISH LITERATURE. *Appendix C.*

Selection of Papers used at the Sessional Examinations.

1. Compare the language and versification of Piers Ploughman with that of Chaucer.

2. Estimate the poetic genius of Chaucer, and paraphrase the following passages :—

(*a*) Than longen folk to gon on pilgrimages,
And palmeres for to seken strange strondes,
To serve halwes couthe in sondry londes;
And specially from every shires ende
Of Englelond to Canterbury they wende,
The holy blisful martyr for to seke,
That hem hath holpen, whan that they were seken.

(*b*) For ther was he nat like a cloisterere,
With thredbare cope, as is a poure scolere,
But he was like a maister or a pope.
Of double worsted was his semicope,
That round was as a belle out of the presse.
Somwhat he lisped for his wantonnesse,
To make his English swete upon his tonge;
And in his harping, whan that he hadde songe,
His eyen twinkeled in his hed aright,
As don the sterres in a frosty night.
This worthy limitour was cleped Huberd.

3. Characterize the poetry of Spenser, and explain the Spenserian stanza.

4. What is the design of the "Faerie Queene?" State the plot of the first book.

5. Explain the allusions in the following passages; and note any remarkable points of thought or expression :—

(*c*) A lovely ladie rode him faire beside,
Upon a lowly asse more white than snow;
Yet she much whiter; but the same did hide
Under a vele, that wimpled was full low.

(*d*) For that olde man of pleasing words had store,
And well could file his tongue, as smooth as glas:
He told of saintes and popes, and evermore
He strowd an Ave-Mary after and before.

(*e*) From her fayre head her fillet she undight,
And layd her stole aside. Her angels face
As the great eye of heaven, shyned bright,
And made a sunshine in the shady place;
Did never mortall eye behold such heavenly grace.

(*f*) But he, my lyon, and my noble lord,
How does he find in cruell hart to hate
Her, that him lov'd, and ever most adord
As the god of my life? Why hath he me abhord?

6. Trace the progress of the drama in England, from its origin to the age of Elizabeth.

7. Compare Shakespeare and Ben Jonson as representatives of schools in dramatic literature.

Appendix C.

Selection of Papers used at the Sessional Examinations.

8. What are the dates of the folio editions of Shakespeare's works? Give some account of subsequent editions.

9. Characterize the prose style of Bacon, Hooker, and Hobbes.

10. Write a short life of Milton, dividing his literary career into three periods.

11. Consider Dryden as (1) a dramatist, (2) a satirist, and (3) a prose writer.

12. Consider Pope as representing the correct school of poetry. Compare Pope with Chapman and Cowper as a translator of Homer.

HISTORY.

I. *European:—*

1. Describe the policy of Augustus, Diocletian, and Constantine; and estimate their respective influence upon the constitution of the Roman Empire.

2. Sketch the manners and customs of the ancient Germans; and inquire whether the sources of any European institutions can be traced thereto.

3. Narrate the leading events of the Gothic invasion, to the founding of the east and west Gothic kingdoms.

4. Write a short life of Mahomet; and give some account of the Arabian conquests.

5. Trace the Carolingian family from Pepin of Heristall to Charlemagne. Describe the conquests of the latter.

6. Explain the fall of the Carolingian dynasty and the accession of Hugh Capet.

7. Enumerate the principal events in the First and Second Crusades.

8. What was the claim of Edward III. to the throne of France?

9. What were the provisions of the treaty of Bretigni?

10. Sketch the characters of Louis XI. and Charles Duke of Burgundy.

II. *English:—*

11. Review the Anglo-Saxon constitution.

12. Estimate the results of the Norman Conquest.

13. Explain the nature of the Feudal System as introduced by William the Conqueror.

14. Describe the contest between King John and the Barons. What constitutional principles were asserted in Magna Charta?

15. Mention the leading events in the reign of Henry III.

16. What constitutional principle was established in the reign of Edward I.?

17. What was the policy of James I. in reference to the Wars of the Reformation in Europe, and the affairs of the Palatinate?

18. Describe the struggle between Charles I. and his Parliament.

WILLIAM RUSHTON, *Professor.*

MODERN LANGUAGES.

Translate into French or Italian :—

Fox How, February 5, 1837.

We are going away to-morrow morning, and it is now past ten o'clock; yet I know not when I can sit down to write so peacefully, as I can in this last hour of our last day's sojourn at this most dear and most beautiful home. Thank you very much for your letter. I will not revive matters of

dispute; what, if spoken, would be known at once to be half in joke, seems in writing to be all meant in sober earnest; and therefore our discussions shall wait till that day, which, I trust, will yet arrive, when we may again meet, and introduce some of our children to each other. A life of peace is one of the things which I vainly sigh after. If you can live out of the reach of controversy and party, it is a great gain. So a quiet country parish is a far more attractive thing than the care of a great manufacturing town; but my lot, and, I believe, my duty have thrown me, as it were, into the manufacturing town; and I must contend for what I earnestly believe to be truth.—ARNOLD'S *Life and Correspondence.*

The extreme parsimony of Frederick William I. of Prussia was indeed ridiculous; but we must recall to mind his times, when extravagance was the fashion in so many courts, and remember that Frederick's penurious habits enabled him to leave his son in a respectable position. And the king's conduct gave a wholesome example to his subjects. He acquired his wealth, not by speculation and banking, but by managing a scanty income with rigid economy; and thus he taught his people that, as they were poor, and could not enjoy the commercial advantages of the English and the Dutch, their only way to prosperity must be in making the best possible use of small means, and despising costly luxuries.—SCHLOSSER'S *History of the Eighteenth and Nineteenth Century.*

1. State the use of the imperfect and of the Preterite in French, comparing it to the Latin, and illustrate it by examples.
2. Give your appreciation of the genius of Molière, and characterize his principal plays.
3. Which are the fundamental differences between the English drama, as represented by Shakespeare, and that of France, as represented by Corneille and Racine?
4. Compare the *Misanthrope* of Molière with the same subject treated by Shakespeare.
5. When did Lafontaine live, and what is the character of his writings?
6. Which was the most brilliant epoch in French literature?
7. Which are the earliest lasting monuments in French literature?
8. How does the poetry of France differ from that of other countries?
9. State the rule of the Italian participle which is imitated from the Latin.
10. Say what you know of the life and works of Alfieri and Silvio Pellico.

R. DE VERICOUR, *Professor.*

THIRD YEAR'S MATHEMATICS.

1. If p be a prime number, and N prime to p, prove that $N^{p-1}-1$ is divisible by p.

Prove also that either $N^{1+2+3+\ldots(p-1)} \pm 1$ is divisible by p^2.

2. Show that $(\cos a_1+\sqrt{-1}\sin a_1)(\cos a_2+\sqrt{-1}\sin a_2)(\cos a_3+\sqrt{-1}\sin a_3)\ldots(\cos a_n+\sqrt{-1}\sin a_n)=\cos(a_1+a_2+a_3+\ldots a_n)+\sqrt{-1}\sin(a_1+a_2+\ldots+a_n)$. Hence prove Demoivre's theorem for a positive integer.

3. Find the equation to an ellipse referred to any two conjugate diameters as axes.

Appendix C. Selection of Papers used at the Sessional Examinations.

If a tangent to an ellipse at a point P meet two conjugate axes in L and M, then prove that PL PM is equal to the square of the semi-diameter parallel to the tangent at P.

4. If $\alpha_1, \alpha_2, \ldots \alpha_n$ be the roots of the equation—

$$x^n + p_1 x^{n-1} + p_2 x^{n-2} + \ldots + p_n = 0,$$

Prove that generally $\Sigma \alpha_1 \alpha_2 \alpha_3 \ldots \alpha_r = (-1)^r p_r$.

If α, β, γ be the roots of the equation $x^3 - 1 = 0$, show that $\alpha^m + \beta^m + \gamma^m = 0$, except when m is a multiple of 3.

5. Show how to find the asymptotes of a polar curve.

Trace the curve $r = a + \frac{b}{\sin \theta}$.

6. Find the value of $\int_0^{\frac{\pi}{2}} \log. \sin x \, dx.$

7. Enunciate and prove the fourth Lemma of the first section of Newton's Principia.

Apply this Lemma to prove that the area included between a hyperbola and the tangents at the vertices of the conjugate hyperbola, is equal to the area included between the conjugate hyperbola and the tangents at the vertices of the hyperbola.

8. Integrate the differential equations—

$$(1) \quad \frac{d^2y}{dx^2} = \frac{m}{(x-a)^2}.$$

$$(2) \quad d^2y + Ay \, dx^2 = X dx^2$$

where A is constant and X a conjunction of x only.

$$(3) \quad \frac{dz}{dx} - \frac{y}{x}\frac{dz}{dy} = -\frac{y^2}{x^2}.$$

9. Find the condition that the straight line—

$$\frac{x-\alpha}{l} = \frac{y-\beta}{m} = \frac{z-\gamma}{n}$$

may be parallel to the plane—

$$Ax + By + Cz = D.$$

10. Planes are drawn through a given point passing through a series of parallel straight lines. Prove that the intersections of these planes with a given plane all pass through a single point.

SENIOR CLASS IN MATHEMATICS.

Pass Questions.

1. The angles in the same segment of a circle are equal to one another. Given the base and verticle angle of a triangle, find the locus of the point of intersection of the bisectors of the base angles.

2. Solve the equations—

$$(1) \quad \frac{p}{x} + \frac{x}{q} = \frac{q}{x} + \frac{x}{p}.$$

$$(2) \quad \sqrt{a+x} + \sqrt{a-x} = \sqrt{cx}$$

$$(3) \quad \left.\begin{matrix} x^3 + y^3 = a^3 \\ x + y = b \end{matrix}\right\}$$

3. Find three numbers, a, b, c, such that a with half of b, b with a third of c, and c with a fourth of a, may each be 500.

4. Show that $\cos A + \cos B = 2 \cos \frac{1}{2}(A+B) \cos \frac{1}{2}(A-B)$.

Prove the identity $\operatorname{cosec} 2A + \cot 4A = \cot A - \operatorname{cosec} 4A$.

5. In a parabola the subnormal is constant and equal to 2AS. Prove this, and also show that—

$$PG : \text{latus-rectum} :: SP : PG.$$

6. Define a differential coefficient; and show, from your definition, the differential coefficients of $\cos x$ and a^x are $-\sin x$ and $a^x \log_e a$ respectively.

7. Find the equation of a straight line in the form—

$$x \cos \alpha + y \sin \alpha = p.$$

8. Show how to find the maxima or minima values of a given function of one independent variable.

Find for what values of x, $\frac{1-x+x^2}{1+x-x^2}$ has a minimum value; and show that the same results can be obtained by Algebra.

9. Integrate the following with respect to x:—

$$\frac{1}{x^2+a^2}, \quad \frac{1}{\sqrt{x^2+a^2}}, \quad \sqrt{x^2+a^2}.$$

Prize Questions.

1. Prove that the same circle passes through the middle points of the sides of a triangle, and the feet of the perpendiculars drawn from the vertices of the triangle on the opposite sides. If ABC be a triangle; A′, B′, C′ the middle points of the sides BC, AC, AB respectively and CD be drawn perpendicular on AB, show that—

$$b.B'D + c.C'D - a.A'D = 0,$$

a, b, c being the sides BC, AC, AB of the triangle.

2. Sum the series—

(α) $\frac{1^2}{2} + \frac{2^2}{2} + \frac{3^2}{2^3} +$, &c., *ad infinitum.*

(β) $1 + \frac{1}{2}n + \frac{1}{3}\frac{n(n-1)}{1.2} + \frac{1}{4}\frac{n(n-1)(n-2)}{\underline{|3}} +$, &c., to n terms.

3. Show how to expand ϵ^x in powers of x.

Find the coefficient of x^n in the expansion of $(a+bx+cx^2)\epsilon^{-x}$, and of $\log_e \frac{1}{1-ax+x^2}$.

4. Prove that the length of the line CD, drawn to the side AB of a triangle ABC, so as to bisect the angle C, is—

$$\frac{2ab}{a+b} \cos \frac{C}{2}.$$

5. Find the equation to an ellipse in the form $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$.

What is the eccentric angle at any point of an ellipse? Show that the locus of intersection of tangents to the ellipse at points whose eccentric angles differ by a constant quantity, is an ellipse similar and similarly situated to the first ellipse.

6. In the parabola $QV^2 = 4SP.PV$.

7. Find the least triangle describable about a given circle.

Appendix C.

Selection of Papers used at the Sessional Examinations.

8. If $x=r\cos\theta$, $y=r\sin\theta$, show by transformation of co-ordinates that—

$$\frac{x+y\frac{dy}{dx}}{x\frac{dy}{dx}-y}=\frac{1}{r}\frac{dr}{d\theta}.$$

Give a geometrical interpretation of this, and thus show how it might have been deduced without transformation of co-ordinates.

9. Integrate the following expressions :—

$$\sqrt{x^2+a^2}, \qquad \frac{1}{\sqrt{x^2-6x+13}}, \qquad \frac{1}{(1-x^2)^{\frac{3}{2}}}.$$

10. Find the area of the curve $\frac{y}{c}=\left(\frac{x}{a}\right)^n$ between the limits $x=a$ and $x=\beta$, and *from the result* deduce the area of the hyperbola $xy=a^2$ between the same limits.

Junior Class in Mathematics.

Pass Questions.

1. Define a vulgar fraction; thence show that the value of a fraction is not altered by multiplying its numerator and denominator by the same quantity.

Add together $\frac{1}{2}, \frac{17}{63}, \frac{5}{21}, \frac{8}{3}$.

Divide $\dfrac{17\frac{1}{3}+\frac{22\frac{1}{4}}{15-\frac{2}{5}}}{69}$ by $\dfrac{6\frac{2}{3}}{22+\frac{8\frac{1}{2}-\frac{4}{5}}{7}}$.

2. A has his property invested in the $3\frac{1}{2}$ per cents at 90, and his income is £233 6*s.* 8*d.* He sells out, and re-invests in the 4 per cents at par. What difference does this make in his income?

3. Define parallel straight lines, and prove that if a straight line falling on two other straight lines make the alternate angles equal to each other, these two straight lines shall be parallel.

4. Divide a given finite straight line into two parts, so that the rectangle contained by the whole and one of the parts, shall be equal to the square of the other part.

5. Multiply together x^2-xy+y^2, $x+y$, x^3-y^3, and divide the result by x^2-y^2.

6. Show that any quantity may be transposed from one side of an equation to the other side by changing its sign.

Solve the equation—

$$\frac{x-3}{5}+\frac{2}{3}x=6-\frac{2x-1}{15}.$$

7. Prove without division that—

$6(x^3-a^3)+ax(x^2-a^2)+a^3(x-a)$ is divisible by $(a+b)(x-a)$.

8. Solve the equations—

(1) $ax^2+px^3=(a+px)(b+x^2)$

(2) $\left.\begin{aligned} x^2+y^2&=a \\ xy&=b^2 \end{aligned}\right\}$

9. Prove that $\cos(A-B) = \cos A \cos B + \sin A \sin B$.

Examine the cases when $A=B$ and $A=B+\frac{\pi}{2}$.

10. Prove the following identities :—

$$(\alpha)\quad \frac{\cos\frac{A}{2}+\sin\frac{A}{2}}{\cos\frac{A}{2}-\sin\frac{A}{2}} = \tan A + \sec A.$$

$$(\beta)\quad \frac{\cos 2A-\cos 4A}{\sin 4A-\sin 4A} = \tan 3A.$$

Prize Questions.

1. Given the base and area of a triangle; find the locus of its vertex.

2. Solve the equations—

$$(\alpha)\quad \frac{x}{a+x}+\frac{a}{\sqrt{a+x}}=\frac{b}{x}$$

$$(\beta)\quad \left.\begin{array}{l}(x+y)(x^3+y^3)=76\\ (x+y)^3=64(x-y)\end{array}\right\}$$

and find all the positive integral solutions of—

$$(\gamma)\quad 4x+5y+14z=49.$$

3. Prove that a quadratic equation cannot have more than two roots. If α, β are the roots of $x^2+px+q=0$, find the value of $\alpha^4+\alpha^2\beta^2+\beta^4$.

4. Sum the series—

$$(\alpha)\quad \frac{1^2}{2}+\frac{2^2}{2^2}+\frac{3^2}{2^3}+, \text{ \&c., } ad\ infinitum.$$

$$(\beta)\quad 1+\frac{1}{2}n+\frac{1}{3}\frac{n(n-1)}{1.2}+\frac{1}{4}\frac{n(n-1)(n-2)}{\underline{/3}}+, \text{ \&c., to } n \text{ terms.}$$

5. Given $\sin(\theta+\phi)=\tan(\theta-\phi)=\frac{1}{2}(\tan\theta-\tan\phi)$, find θ and ϕ.

6. If r, r_1, r_2, r_3, be the radii of the inscribed and escribed circles of a triangle, and R of its circumscribing circle, show that—

$$r_1+r_2+r_3-r=4R.$$

7. If A, B, C, be the angles of a triangle, prove that—

(α) $\tan A+\tan B+\tan C=\tan A \tan B \tan C$.

$$(\beta)\quad \frac{\tan A}{\tan B}+\frac{\tan B}{\tan C}+\frac{\tan C}{\tan A}+\frac{\tan A}{\tan C}+\frac{\tan B}{\tan A}+\frac{\tan C}{\tan B}=\sec A \sec B \sec C-2.$$

8. Prove that $\log(1+x)=x-\frac{1}{2}x^2+\frac{1}{3}x^3-$ &c.

Find the coefficient of x^n in the expansion of $\log\frac{1}{1-ax+x^2}$.

ROBERT ROMER, *Professor.*

NATURAL PHILOSOPHY.—JUNIOR DIVISION.

1. Describe Atwood's machine, and explain its use.

2. State the laws of motion.

3. Two concurrent parallel forces, 24 lbs. and 18 lbs. respectively, act at a distance of 14 feet from each other; determine their resultant.

Appendix C.

Selection of Papers used at the Sessional Examinations.

4. How is the specific gravity of a body ascertained—
   1. When it sinks in water?
   2. When it floats in water?

5. When does a convex lens give a real, when a virtual image?

6. Explain what is meant by spherical aberration, and what by chromatic aberration.

7. If the bulb of a thermometer be moistened with ether, and then exposed to a current of air, the temperature is lowered; explain the cause.

8. What is meant by the convection of heat?

9. How is it shown that water is a conductor of sound?

10. How is it proved that a magnet can induce magnetism in iron, and point out the position of the poles in the induced magnet relative to those in the inducing magnet.

11. State the chief points of difference between the current produced by a battery and an induced current.

12. Describe Coulomb's torsion balance.

SENIOR DIVISION.

1. Prove the following formula for the distances of the conjugate foci in a mirror—

$$\frac{1}{d}+\frac{1}{d'}=\frac{2}{r}.$$

2. At what distance from a concave mirror of given focal length should an object be placed in order that its image should be real and magnified?

3. Explain the construction of the compound microscope.

4. A gas occupies 1 cubic foot at a temperature of 42° *F.*; what volume will it occupy at 272 *F.*?

5. As a general rule bodies expand on increase of temperature. State any exception which you know to this.

6. Explain the formation of dew.

7. How is the latent heat of steam determined, and give the necessary formula?

8. How would you explode gunpowder by frictional electricity?

9. What properties of electricity are generally used in the electric telegraph?

10. State the laws of attraction and repulsion in parallel currents.

Prize Questions.

1. Prove the principle of Hadley's Sextant.

2. Knowing the focal length of a convex lens, determine the position of an object when the distance between it and its image is a minimum.

3. State the several methods used to polarise a ray of light, and how is the plane of polarisation determined?

4. Enumerate the chief causes which increase the rapidity of evaporation.

5. Describe Regnault's method of ascertaining the expansion of gases, and state on what the accuracy of this method depends.

6. Describe Melloni's method of ascertaining the diathermaneity of transparent bodies.

7. State the chief variations to which the magnetic needle is subject.

8. A gold leaf electroscope is charged with negative electricity. A body approached towards it causes the leaves first to collapse, then to diverge; what inference do you draw as to the electrical state of this body?

9. State accurately the mutual action which subsists between a current and a magnet.

10. How is it proved that one current can induce another?

---

1. Enumerate the several mechanical powers, and state in each case the condition of equilibrium.

2. Prove the laws of equilibrium in the case of the lever and the inclined plane.

3. A bar nine feet long rests horizontally upon two vertical props, a weight of 486 lbs. is suspended at a distance of 40 inches from one end; find the pressure on each prop.

4. What is meant by a uniform accelerating force? When such a force acts on a body for a given time, how would you determine the velocity it will produce?

5. A body falls from the height of half a mile, with what velocity will it reach the ground?

6. A body is projected vertically upward with a velocity of 400 feet per second, in what time will it reach the height of 150 yards?

7. Explain the method of ascertaining specific gravities of both solids and liquids by the specific gravity bottle.

8. Explain the construction of the air-pump, force-pump, and syphon.

9. How is the apparent diameter of a planet observed?

10. Knowing the apparent diameter and distance of a planet, how is its true diameter calculated?

11. Explain what is meant by the precession of the equinoxes, and what by the equation of time.

12. How are the right ascension and declination of a star ascertained?

Prize Questions.

1. Prove the following formula for the centrifugal force, viz. :—

$$f = \frac{v^2}{r}.$$

2. Hence if two bodies move in different circles under the action of forces directed to the centres, prove that the forces are directly as the radii, and inversely as the squares of the periodic times.

3. If P_1, P_2, P_3, &c., be any number of parallel forces in the same plane, and p_1, p_2, p_3, &c., the perpendicular distances of their directions from any point in the plane, the distance of their resultant from the same point is equal to

$$\frac{P_1p_1 + P_2p_2 + P_3p_3}{P_1 + P_2 + P_3}, \text{ &c.}$$

4. A solid, composed of a cone and hemisphere on the same base, rests on a horizontal plane; find the form of the cone, that the solid may rest on the hemispherical end in all positions.

5. A pendulum which vibrates seconds at the equator, when carried to a certain latitude, is found to gain 2 minutes in 24 hours. Compare the force of gravity at that place with the force at the equator.

Appendix C.

Selection of Papers used at the Sessional Examinations.

6. From Gay Lussac's and Mariotte's laws derive the following formula :—

$$\frac{v}{v^1}=\frac{p^1}{p}\cdot\frac{460+t}{460+t^1}.$$

7. Knowing the volume of the receiver and the barrel of an air pump, how would you calculate the degree of exhaustion after n strokes?

8. Explain the method of ascertaining the time at a given place by means of the altitude of the sun.

9. How would you calculate the greatest distance from the node at which a lunar eclipse can occur.

10. Explain the principle by which the solar parallax is determined from a transit of Venus.

PRACTICAL MECHANICS AND THEORY OF THE STEAM-ENGINE.

1. Two rafters are each 20 feet in length, and carry a load of two tons, uniformly distributed; their feet are connected by a rod 35 feet in length. Determine the strain on it.

2. How many cubic feet of water would a ten-horse-power engine raise from a well 150 feet deep in 24 hours?

3. If the resistance of the air vary as the square or any higher power of the velocity, prove that a body descending an inclined plane by its own weight will ultimately attain a uniform velocity, and show how it may be computed.

4. Investigate the condition of equilibrium of the wheel and axle, taking into account friction.

5. If the resistance to driving a pile vary as the square of the depth, show how to determine the depth to which it will be driven by a blow of given magnitude.

6. Investigate the position of the centre of percussion of a body moving round a given axis.

7. What quantity of steam will be furnished by 10 gallons of water, the pressure of the steam being 14·7 lbs. per square inch, and temperature 212° F.?

8. Prove the following formula for the horse-power of a steam-engine :—

$$\text{H. P}=\frac{144\epsilon\mu_p\text{S}}{33{,}000}$$

9. Express the horse-power in terms of the evaporation, diameter of cylinder, and velocity, and hence deduce the velocity corresponding to maximum useful effect.

10. Enumerate the several resistances to the motion of the piston of a locomotive.

MATHEMATICAL PHYSICS.

1. If the diagonal of a parallelogram represent the direction of the resultant of two forces which are represented in magnitude and direction by the sides; prove that it also represents the magnitude of the resultant.

2. Two circular plates of equal and uniform thickness are in contact; required the distance of their common centre of gravity from the point of contact.

3. A beam rests with one end upon a rough horizontal plane, and the other end against a smooth vertical wall; required its position when on the point of slipping.

4. Investigate the equation of the common catenary.

5. Prove the formula for the velocity of non-elastic spheres after impact.

6. Investigate the following for time of vibration of a pendulum :—

$$t=\pi\sqrt{\frac{l}{g}}$$

7. Determine the centre of pressure of a triangle having its vertex in the fluid and its base horizontal.

8. Describe the Gallilean telescope, and show how to determine its magnifying power.

9. Prove the following formula for determining the focal length of a lens :—

$$\frac{1}{f}=(\mu-1)\left(\frac{1}{r}-\frac{1^1}{r^1}\right).$$

10. How is the moon's horizontal parallax ascertained?

11. In what way is the apparent position of a fixed star affected by the aberration of light?

12. How is it proved that the earth's orbit is an ellipse having the sun in one focus?

Prize Questions.

1. Investigate the conditions of equilibrium of a rigid body entirely free.

2. A cone of given weight is placed with its base on an inclined plane, and supported by a weight which hangs by a string fastened to the vertex of a cone, and passing over a pulley in the plane at the same height as the vertex ; determine the conditions of equilibrium.

3. A rod passing through a fixed ring in the vertical axis of a surface of revolution, rests in all positions with one end on the surface; find the nature of the generating curve.

4. Determine the attraction of a sphere on an external point.

5. Prove that the path of a point acted on by a central force, must be in a plane passing through the centre of force.

6. A particle projected in a given direction with a given velocity, and attracted towards a given centre of force, has its velocity at every point to the velocity in a circle at the same distance, as $1:\sqrt{2}$; find the orbit described, the position of the apse, and the law of force.

7. Prove the following formula for the moment of inertia of any body with regard to any axis—$I=A\cos^2\alpha+B\cos^2\beta+C\cos^2\gamma$.

8. Determine the centre of pressure of a semicircle having its diameter in the fluid.

9. Investigate the relation between the angles of incidence and emergence when a ray of light passes through a prism.

10. How can the Heliocentric latitude and longitude of a planet be ascertained?

11. When does a planet appear stationary?

12. If the earth be an oblate spheroid, prove that the radius of curvature at any point is given by the formula $r=a-2c+3c\sin^2 l$.

PHYSICS—(*Honors*).

1. Describe the method of exhibiting Fraunhofer's lines.

2. How does the undulatory theory of light account for the phenomena of diffraction?

3. Describe and explain the phenomena which arise when a pencil of white light falls on a striated surface of glass.

Appendix C. — Selection of Papers used at the Sessional Examinations.

4. How can a circularly polarized ray be distinguished from ordinary light?

5. Explain how the magnetic intensity is determined by the method of oscillations.

6. What is the mutual action of two electric currents which move to or from the same point, and show how this action is availed of to exhibit the rotation of one current by another?

7. A rectangular current when freely suspended places itself in a plane at right angles to the magnetic meridian; describe the action of the earth on the several parts of this current.

8. How would you arrange a battery to provide the maximum intensity in a given circuit?

9. When a body is exposed to a constant source of heat, explain why its temperature does not finally attain to the temperature of the source of heat.

10. Describe Tyndall's method of examining the diathermaneity of gases.

JOHN ENGLAND, *Professor.*

CHEMISTRY.

Pass Questions.

1. What is the nature of simple and compound bodies? Explain the laws by which their constituents are united and are aggregated into masses.

2. Explain the difference between chemical and physical action.

3. Give in symbols an example of double decomposition.

4. An elementary substance forms two acids with oxygen; how would you distinguish them and the salts which they form by the terminations of the names?

5. What is meant by a monobasic and a polybasic acid? Give examples by formulae of the salts of such acids.

6. Steam is passed over red-hot iron; explain the changes and the properties of the products.

7. Give examples of the different forms of carbon, and state the most valuable properties of some of these forms.

8. Give the mode of preparation and the properties of olefiant gas.

9. How is iodine prepared from kelp? Give the formulae of its oxygen and hydrogen compounds.

10. Give the process for preparing metallic sodium. By what means is its presence detected in compounds?

11. How is phosphorus prepared? Give the formulae of the compounds it forms with oxygen.

12. Give the mode of preparation and the properties of the two chlorides of mercury.

13. State shortly the great laws of combination, and explain how the table of equivalents is constructed.

14. What is Dumas' method of estimating the quantity of nitrogen in organic compounds?

15. Give the preparation and the properties of cyanogen gas.

Prize Questions.

N.B.—Prizemen are not required to answer the pass questions.

1. Give examples of mineral polybasic acids. Write the formulae of their neutral salts with a protoxide and with a sesquioxide.

2. What explanation has been given of the effect of heat in producing the allotropic forms of bodies? Give examples of simple and compound bodies in their ordinary and allotropic forms.

3. Give the mode of preparation and the properties of light carburetted hydrogen (marsh gas).

4. Give the mode of preparation of bromine, and of its oxygen and hydrogen compounds.

5. Illustrate the doctrine of gaseous combination by volume by the compounds of hydrogen and of oxygen with nitrogen, sulphur, and carbon.

6. How is phosphoric acid prepared in its anhydrous and in its hydrated forms?

7. Explain the different changes which take place in the rusting of iron.

8. What is meant by isomorphism? give examples.

9. Give the position and the relations of the axes, and the notation of the faces of the primary and of the inverse octahedron of the square prismatic system.

10. Give the mode of preparation and the properties of arsenuretted hydrogen.

11. How is the presence of nitrogen ascertained in organic substances? Explain Wills' method of estimating the quantity of this element.

12. What are homologous series? Give the formulae of the acid and aldehyde of the first and second of the series.

J. Blyth, *Professor.*

Botany.

1. Define the family *Aroideæ*.

2. Name families of *Thalamiflorœ*, *Calyciflorœ*, and *Apetalæ*, in which the ovary is apocarpous.

3. Explain the nature of 'equitant' leaves.

4. Describe the parts of the seed and the normal position of the embryo.

5. By what negative characters are Cryptogams distinguished from Phænogamic plants?

Zoölogy.

1 & 2. To what classes and orders of the animal kingdom do the principal human parasites belong?

3. Briefly distinguish the natural orders of hoofed quadrupeds.

4. What characters separate *Tunicata* from ordinary Mollusks?

5. What is meant by the phrase—'alternation of generations'?

J. Reay Greene, *Professor.*

Geology and Mineralogy.

1. In what circumstances do Plutonic Rocks differ from those of a volcanic origin?

2. Describe the features which mark Metamorphic Rocks.

3. What do the terms *dip* and *strike* signify; and what are anticlinal and synclinal axes?

4. What forms of *Pentameri* characterize the Llandovery Rocks?

5. Give a section showing the relation of the Old Red Sandstones, as they are seen in the county Wexford, to the Silurians.

Appendix C.

Selection of Papers used at the Sessional Examinations.

6. Name some of the most important fossils which occur in the Carboniferous formation.

7. What are the natures of the coals which in Ireland occur north and south of a line in the latitude of Dublin?

8. Where in Ireland are the strata which represent the Rhætic beds best developed; and what are the fossils which mark this portion of the Triassic formation?

9. What substances of value as building materials does the Jurassic formation afford?

10. Where in the British Isles does the Miocene formation occur; and what is the nature of its fossils?

11. In what respect do the two ores of iron, *Hæmatite* and *Limonite*, differ from each other?

12. To what order of minerals is *Galena* referable, and to what system of crystals does it belong?

ROBERT HARKNESS, *Professor.*

CIVIL ENGINEERING.

1. Describe the general form of the boiler and fire-box of a locomotive.

2. What is meant by the lap, lead, and advance of the valve? How are these three connected?

3. Give details of permanent way on a line where either the double-headed rail or the broad-footed rail is used.

4. Describe the method of carrying on the work in a large railway cutting.

5. Give the cross section of any tunnel (lined) that you are acquainted with.

6. What are the requirements of the Railways Clauses Act with respect to the bridge where a mail road crosses a railroad?

7. Describe the construction of a broken-stone road with paved foundation.

8. Describe the foundations of Westminster Bridge, or any other where the foundations have been got down without excluding the water.

9. What is the ordinary rule adopted as to the distance a pile should be driven as measured by its resistance?

10. What weights have been borne by piles in foundations?

11. Give a detailed description of any example of a Warren girder.

GEOMETRICAL DRAWING.

1. Explain any one of the methods used for describing a Scotia moulding.

2. How would you use a scale of chords for setting off an angle?

3. If a line be parallel to one of the planes of reference, prove that its projection on that plane will be parallel to the trace on that plane of any plane passing through the line.

4. Given the projections of a point on the horizontal and vertical planes of reference, how would you find its projection on the third plane of reference taken perpendicular to the two others?

5. Given the traces of two planes, find the projection of their intersection.

6. Draw the projections and real size of the section of a vertical circular cylinder cut by a plane whose traces are parallel to the ground line.

7. Find the boundary between light and shade on the surface of a vertical right circular cone.

8. Construct scales for the measurement of lines in the following directions in an isometric drawing, viz. :—(*a*), the three isometric directions; (*b*), the diagonals of the faces of the director cube.

9. Prove that the perspectives of parallel lines pass through one point.

10. A line makes 30° with the picture plane, and lies in a vertical plane making 45° with the picture plane; find its vanishing point.

Civil Engineering.

1. Give Mr. Francis's formula for the flow of water over a weir, and explain how it was obtained.

2. What is the ordinary expression for the flow of water from a *small* orifice in a thin plate? Whence does the coefficient introduced into it arise, and within what limits does it vary?

3. Give an outline of the manufacture of cast iron.

4. Describe Mr. Hodgkinson's method of investigating the best form of cast iron beam. State the result he arrived at, and the formula he has given for the strength of such a beam.

5. What is the strength of a rivetted joint in terms of that of the plate rivetted?

6. What results have been arrived at by Mr. Fairbairn with respect to the repeated application of strains within the breaking strain to a wrought iron beam?

7. Give and prove the formula for the deflection of a uniform rectangular beam, supported at the ends and carrying a load at the centre.

8. Describe the preparation of a good hydraulic mortar.

9. Write the clauses of the specification referring to the masonry in the ordinary road bridges of stone over a railroad.

Surveying, &c.

1. How would you arrange your offsets in passing from one line to the next in a chain survey, so as to obtain accuracy in the calculated acreage?

2. What do you think of the accuracy of the work in the following triangle?—

1st side = 803 adjoining segment of base = 701.
2nd side = 1,007 „ „ „ = 1,019.
Tie line = 286.

3. Set the theodolite on the table to read.

4. Draw a scale suitable for measuring chains and links on an Ordnance map, neglecting shrinkage.

5. Describe the method of checking the accuracy of a closed traverse survey.

6. Given the angle between two straight lines in the field, and the distance of the point at which the circular curve joining them starts from the intersection of the lines, find the angle to be used in setting out the curve with the theodolite and chain.

7. Describe the *construction* and *use* of the first set of tables in Macneill's Earthwork Tables.

8. In a cutting, given the following heights 100 feet apart :—No. 1 = 20 feet; No. 2 = 24 feet; No. 3 = 26 feet; No. 4 = 23 feet; slopes $1\frac{1}{2}$ to 1, and sidelong slope of ground = 1 in 6; find area of ground required, allowing 30 feet breadth of formation level.

Appendix C.

Selection of Papers used at the Sessional Examinations.

9. What is the nature of the surface adopted for the joints in the arch of an oblique bridge?

10. Give and prove the formula for the angles of skewback of intrado and extrado.

ALEXANDER JACK, *Professor.*

PERSONAL PROPERTY.

1. Explain the several classes of contracts. If a contract have more than one object, and one of the objects be unlawful, what is the effect on such as are legal?

2. What is a single bond; and give the form of it?

3. Give some exceptions to the rule that a chose in action is not assignable.

4. Describe a power of appointment. Give an instance of what is regarded as "a fraud in the power."

5. Give an outline of a settlement of personal property.

6. What is an ostensible partner, and in what cases is he liable to the partnership debts, although he has no participation in the profits?

7. What is an administration "de bonis non?"

8. If a married woman be entitled to a reversionary interest, in what case is a transfer of it by her binding on her when she survives her husband?

9. How is a copyright capable of being transferred?

10. How does a contract of sale differ from an exchange?

11. What is a lien? How many kinds are there?

12. What is a trade mark? and what offence in law is the forgery of a trade mark?

13. What is the effect of the bequest of a legacy by a testator to a creditor?

14. What is a demonstrative legacy?

REAL PROPERTY.

1. What was a conditional fee at common law?

2. What is the difference between an estate tail general and an estate tail special?

3. What are emblements?

4. At the time the Statute of Uses passed, what were the most usual methods employed in creating or raising uses. Explain the way in which such methods respectively operated and the effect of the statute on them.

5. Give an instance of a "shifting use."

6. What power has a married woman to dispose of her estate in land by an ordinary conveyance?

7. What was the origin of the power of disposition by will?

8. What are the requisites of a deed in respect of the parties thereto, and of the subject matter? Distinguish technically the several parts of a deed.

9. Distinguish between covenants that run with the land and those that do not.

10. What is estoppel by deed, by record, and in pais, respectively?

11. If a testator charges his real estates with the payment of debts, what power does such a charge confer on his executors or trustees under the Statute 22nd and 23rd of the Queen?

12. What is the reason for requiring a sixty years' title to land; and for what period should title be made to an advowson?

MICHAEL BARRY, *Professor.*

Practical Anatomy.

1. Give an outline of the parts concerned in femoral hernia; mention the disposition of the several fasciæ and the vascular relations of importance in cases demanding surgical operation.
2. Describe the common iliac arteries and veins.
3. Describe the articular surfaces and ligaments of the hip joint; then state the relations of muscles, vessels, and nerves, with respect to it.
4. Describe the first stages of the right and left subclavian arteries.
5. Describe the popliteus muscle.
6. Describe the fibula and its articular surfaces; state precisely the attachments of the ligaments and muscles connected with it.
7. Describe the origin, course, and relations of the radial artery.
8. Describe the posterior tibial nerve.
9. Describe the axis and the check ligaments.
10. State the connexions of the superior maxillary bone, its processes, and foramina.

Anatomy and Physiology.

1. How do you show that the medulla spinalis is endowed with powers independent of those resulting from its connexion with the brain?
2. Describe the connexions, structure, and office of the iris.
3. Describe the retina, the optic commissure, and tracts.
4. How is the cerebellum connected with other parts of the nervous centres?
5. Describe the microscopical features of muscular tissue.
6. Describe the function of the liver; give an account of the composition and use of the bile.
7. Describe the biliary ducts, tracing them from the common hepatic duct into the interior of the organ.
8. Describe accurately the mucous membrane from the pyloric to the ilco cœcal valves.
9. Describe the mechanism by which the chest is alternately enlarged and diminished in respiration; state the average "vital capacity" according to the researches of Dr. Hutchinson.
10. Describe the structure of the spleen, its corpuscles, and the splenic artery and vein.

J. H. Corbett, *Professor.*

Materia Medica and Therapeutics.

1. Hippo.—Latin name of plant furnishing; natural family; part used; time of gathering; physical properties; constituents; active principle; physiological action; therapeutical uses; dose; mode of administration; correctives and incompatibles.
2. Bark.—Same particulars.
3. Castor Oil.—Same particulars.
4. Nitrate of Silver.—Chemical composition; physical and chemical characters; tests of purity; physiological action; therapeutical uses; dose; mode of administration; correctives and incompatibles.
5. Iodide of Potassium.—Same particulars.
6. Tartar Emetic.—Same particulars.

Prize Questions.

7. Compare the action of *opium* with that of *morphia*.
8. Compare the action of *diaphoretics* with that of *diuretics* in the cure of dropsy.

Appendix C.

Selection of Papers used at the Sessional Examinations.

9. Give a general outline of the therapeutical administration of *stimulants.*

10. Compare the action of quinine with that of arsenic in the treatment of ague.

PURCELL O'LEARY, *Professor.*

MEDICINE.

1. Describe the various kinds of eruption that occur in continued fever and the time of their appearance and disappearance.

2. State the secondary diseases that may arise in a case of intermittent fever, with an explanation of their cause.

3. Describe the early stage of continued fever, and the diseases with which it may be confounded.

4. Distinguish a case of varicella from variola.

5. Enumerate the various causes which might produce general anasarca. How would you proceed to ascertain the particular cause in a given case?

6. What might be the termination of a case of hepatic abscess?

7. Enumerate the symptoms of aneurism of the arch of the aorta.

8. How may dilatation of the right side of the heart be caused by constriction or insufficiency of the aortic valves?

9. Describe the process of cure in tuberculosis of the lung.

10. What relation has the age of a patient to the prevalence of neuralgic affections and diseases of the motor nerves respectively?

11. Enumerate the different causes which might produce icterus, and the mode of ascertaining the true cause in a given case.

D. C. O'CONNOR, *Professor.*

SURGERY.

1. Describe the different opinions as to the origin of pus, its constituents, different kinds, the rationale of its absorption, and how it is circumstanced as the result of simple phlegmenous inflammation, and of erysipelatous inflammation, with the pathology and special treatment of each of those diseases.

2. How does hectic fever differ from pyæmia? the causes of the latter, its varieties and symptoms, the secondary complications which may follow, and the results of experiments from the injection of pus into the veins of living animals.

3. What are the results given by M. Ricord, from the inoculation of the different products of the different affections of venereal diseases? Describe the practice of syphilisation and its effects.

4. What are the three stages of hydrophobia, as given by Virchow, and the pathology of the disease?

5. Describe the hæmorrhagic diathesis, and treatment for it; also, how bleeding from an artery is arrested by nature, and the means used at different times for its cure.

6. Describe the process of union in fractured bones, and the cases requiring amputation.

7. Describe the different kinds of cataract, and how the operations for each should be performed; also the nature of glaucoma, and operations for its cure.

8. What are the operations for the radical cure of a reducible inguinal hernia, also the symptoms of a strangulated one, and full detail of the treatment, including the operations?

9. What are the symptoms of stone in the male bladder, its effects, treatment, and a description of the different operations for its cure?

W. T. TANNER, *Professor.*

MEDICAL JURISPRUDENCE.

1. How are true corpora lutea distinguished from false? What are the present views of the value of corpora lutea as evidence of impregnation?

2. In cases of disputed legitimacy, what are the usual data for calculating the length of utero gestation? State the fallacies to which they are subject.

3. In cases of infanticide, of what value is the evidence derived from the state of the foramen ovale, the ductus arteriosus, and the umbilical vessels?

4. State the mode of examining a blood stain on linen, and the tests by which it is distinguished.

5. What is the difference between the blood globules of mammals, birds, fishes, and reptiles? What probability is there of distinguishing between the blood globules of man after being dried, and those of the inferior animals?

6. What are the primary and the secondary symptoms of poisoning by mercury? What are the sources of fallacy to which the latter are subject?

J. BLYTH, *Professor.*

MEDICAL JURISPRUDENCE.

Legal Part.

1. Distinguish the form in which questions may be properly put to witnesses on the direct examination from that in which they may be framed upon the cross-examination. To what matters should the re-examination be confined?

2. Give an instance of a question which a witness may decline to answer. Has a medical man any privilege exempting him from the disclosure in a court of law of facts confidentially made known to him by a patient? If not, what precaution should be observed by medical practitioners in such matters?

3. What is the corpus delicti of the crimes of "murder," "manslaughter," and describe the meaning in law of a "maim," a "wound," a "grievous bodily harm," and a "disabling," respectively?

4. Is it essential in a case of murder by poison, that the particular kind of poison which caused the death should be proved?

5. If a medical attendant be guilty of gross negligence, or criminal inattention, or culpable rashness in the treatment of a patient, and that death ensues in consequence, of what offence is he guilty? Does it make any and what difference whether he be a licensed or unlicensed practitioner?

6. In what manner are witnesses allowed to use memoranda in writing to refresh their memory? and how far may experts or skilled witnesses, while under examination, avail themselves of professional treatises or the published works of eminent writers on the subject of their evidence?

7. What forms are necessary with respect to signature, attestation, and for the valid execution of a will? In the consideration of a question of "testable capacity," what may be regarded as the best criterion of its existence at the time of the execution of the will?

8. What are the requisites of a medical certificate to justify the confinement of a person as a lunatic?

9. In order to sustain a defence on the ground of insanity, what should be proved?

MICHAEL BARRY, *Professor.*

Appendix D.

List of the Students who obtained Honors or Prizes at the Sessional Examinations.

APPENDIX D.

List of the Students who obtained Honors or Prizes at the Sessional Examinations held in June, 1865.

Greek (Third Year).
Edward Wilson, . . . 1st.

Greek (Second Year).
William Fitzgerald, . . } 1st.
John O'Driscol, . . . }
Charles Drinan, . . }
Thomas Power, . . . 4th.

Greek (First Year).
Arthur Anglin, . . . 1st.
Thomas Gillman, . . . 2nd.
Stephen Ronan, . . . 3rd.
Maurice Moriarty, . . . 4th.

Latin (Third Year).
Edward Wilson, . . . 1st.

Latin (Senior).
Charles Drinan, . . } 1st.
John O'Driscol, . . }
James M'Fadden, . . . 3rd.
Benjamin Hamilton, . . 4th.
William Fitzgerald, . . 5th.
Richard O'Neill, . . . 6th.

Latin (Junior).
Arthur Anglin, . . . 1st.
Thomas Gillman, . . . 2nd.

French (Medical).
George Finlay, . . . 1st.
William Newsam, . . . 2nd.
Denis Keogh, . . . 3rd.

French (Senior).
Maurice Moriarty, . . . 1st.
Stephen Ronan, . . . 2nd.
Benjamin Hamilton, . . 3rd.

French (Junior).
Matthew O'Connell, . . } 2nd.
William Stephens, . . }

Mathematics (Third Year).
Alfred Dann, . . . 1st.

Mathematics (Second Year).
John Burke, . . . 1st.
Patrick Mahony, . . . 2nd.
John M. Mills, . . . 3rd.

Mathematics (First Year).
John Thornhill, . . . 1st.
Arthur Anglin, . . . 2nd.
Thomas Gillman, . . . 3rd.
John O'Driscoll, . . } 4th.
R. W. Johnston, . . }

Metaphysics.
Edward Wilson, . . . 1st.
James Marcel, . . . 2nd.

Logic.
James M'Fadden, . . . 1st.
John M. Mills, . . } 2nd.
Charles Drinan, . . }

Mathematical Physics.
William Perrott, . . . 1st.
Alfred Dann, . . . 2nd.

Applied Mechanics.
William Perrott, . . . 1st.
Arthur Hill, . . . 2nd.
John Clanchy, . . . 3rd.

Natural Philosophy (Medical).
John Donovan, . . . 1st.
William Newsam, . . . 2nd.

Geology and Mineralogy.
James P. Howe, . . . 1st.

Engineering (Third Year).
William Perrott, . . . 1st.
Arthur Hill, . . . 2nd.

Geometrical Drawing.
John Thornhill, . . . 1st.

English Literature.
Edward Wilson, . . . 1st.
Alfred Dann, . . . 2nd.
Michael Burke, . . . 3rd.

History.
Michael Burke, . . . 1st.
John Lindsay, . . . 2nd.

English Language.
John O'Driscoll, . . .
Benjamin Hamilton, . .
Maurice Moriarty, . . .
Arthur Anglin, . . .
Michael Molony, . . .
William Fitzgerald, . .

Chemistry.
Richard O'Brien, . . .
George Finlay, . . .
John Donovan, . . .
James Chatterton, . . .
William Newsam, . . .
Thomas Sandiford, . . .

Law (First Year).
George Laurence, . . . 1st.

Law (Second Year).
Richard Adams, . . } 1st.
Michael Barry, . . }

Medical Jurisprudence.
William Collins, . . } 1st.
Patrick Heas, . . }

Medicine.
William Collins, . . } 1st.
Patrick Heas, . . }

Practical Anatomy.
George Gibson, . . . 1st.
Alexander Heron, . . . 2nd.
David Forbes, . . . 3rd.

Surgery.
Alexander Heron, . . . 1st.
George Gibson, . . . 2nd.
Henry Donovan, . . . 3rd.

Midwifery.
Michael U. Greany, . . . 1st.
Henry Donovan, . . . 2nd.
Alexander Heron, . . . 3rd.
David Forbes, . . . 4th.

List of Students who obtained Honors and Prizes—*con.*

Appendix D.

List of the Students who obtained Honors or Prizes at the Sessional Examinations.

Anatomy and Physiology (Second Year).

John Roche,	1st.
Robert D. Corbett,	2nd.
Thomas Ryan,	3rd.
John Grattan,	4th.

Practical Anatomy (First Year).

Thomas Ryan	1st.
Robert D. Corbett,	2nd.

Materia Medica.

Patrick Cremen,	1st.
Francis Roche,	2nd.
John H. Grattan,	3rd.
Robert D. Corbett,	3rd.

Practical Chemistry.

John H. Grattan,	1st.
John Lunisden,	1st.
Francis Roche,	3rd.
Alexander Trousdell,	4th.
John Sisk,	5th.
Robert D. Corbett,	6th.
James A. O'Brien,	7th.

Anatomy and Physiology (First Year).

Richard O'Brien,	1st.
Wm. T. Newsam,	2nd.

APPENDIX E.

Appendix E.

Table giving List of Classes, Number of Lectures Weekly, and of Students attending same.

Table giving List of Classes, Number of Lectures Weekly, and of Students attending same.

	No. of Lectures Weekly.	No. of Lectures.	No. of Students.
Greek,	10	253	44
Latin,	9	194	38
Extra English,	–	25	3
English Language,	3	30	20
,, Literature,	3	59	7
History,	3	57	6
Sanscrit,	–	52	3*
French,	9	225	84
Italian,	–	24	10
Mathematics,	9	207	65
Chemistry,	3	70	70
Practical Chemistry,	4	45	60
Natural Philosophy,	14	286	95
Political Economy,	4	21	3
Natural History,	3	70	56
Geology and Mineralogy,	3	72	17
Logic,	3	35	16
Metaphysics,	3	50	3
Engineering,	9	239	42
Anatomy and Physiology,	5	115	110
Practical Anatomy,	5	105	97
Surgery,	3	62	39
Midwifery,	3	56	25
Medicine,	3	60	28
Materia Medica,	3	60	56
Medical Jurisprudence,	3	36	25
English Law,	3	72	15
Civil Law,	4	47	13

* 19 Weeks' Lectures.

Appendix F.

APPENDIX F.

Reports from Professors.

Form of Circular from President, and Special Reports from Professors.

Return to be filled up by the Professor of ——— and to be returned to the Registrar, so filled up, for the official information of the President, on or before the ——— being for the Collegiate Session 186 :

A.—As to the course or courses of lectures given by the Professor. 1st. Duration and extent of the course; number of terms. 2nd. Number of weeks of lectures in each term. 3rd. Number of lectures weekly, and days and hours of lectures.

B.—The description or title of the course or courses of lectures delivered, and a general abstract of the subjects of instruction contained in the course, and the title of the text-books recommended.

C.—Whether the lectures are illustrated by reference to maps, diagrams, specimens, or experiments; and a general notice of the kind of illustrations used.

D.—Whether any method of tutorial, or other special instruction, is employed, as by setting out portions of text-books for lessons, by themes, or exercises in composition, or problems; and whether special class examinations are held, and at what time; or whether herborization excursions, or field exercises, are given.

E.—What faculties or divisions of students are those attending courses of lectures of the Professors making the return.

F.—The number of students attending each course, distinguishing matriculated and non-matriculated students; and the general regularity of attendance.

G.—The general conduct of students at the Professor's lectures; and the general state of discipline as regards the Professor's classes.

H.—The general condition of the department of which the Professor has charge, as to supplies, fitments, cleanliness, and accommodation, for the purposes of instruction.

The Professor, in making the above returns, is requested to mark the answers with the letter designating the portion of the form of return, as above, to which each answer refers.

Signed, by order of the President,

Robt. Kenny, *Registrar.*

Report of the Professor of Greek.

A.—1. The course extended over 3 terms. 2. The first term consisted of 8 weeks, the second of 13, and the third, 4½ weeks. 3. Ten lectures were given in each week, viz., 2 on each day except Saturday, between the hours of 9 and 11 o'clock, A.M.

B.—The course of the Greek language and literature.

C.—The course did not require the kind of illustration specified under this head, except in so far as a reference to maps was necessary, to explain the geographical allusions in the authors studied.

D.—Portions of the authors were prepared by the pupils, in the intervals between the lectures; and exercises in composition, in prose and verse, were required from the more advanced students.

E.—The course was attended exclusively by students in the Faculty of Arts.

F.—Forty-four, all matriculated students.

G.—The general conduct of the students at the lectures was quite satisfactory; and the attendance, with few exceptions, regular.

H.—The condition of the Professor's department, as to fitness, cleanliness, &c., was satisfactory.

JOHN RYALL.

REPORT of the PROFESSOR of LATIN.

A.—1. The course extended through 3 terms. 2. First term, 6 weeks; second term, 12 weeks; third term, 4 weeks. Extra and third year's class, 2 lectures weekly; senior class, 3 lectures weekly; junior class, 4 lectures weekly.

B.—The Latin language. Text-books of lectures:—Junior class: Livy, part of Book IV.; Horace, Satires, Book I., 1-5. Senior class: Tacitus Annals, part of Book II.; Virgil—Æneid, Book IX. Extra and third year's class: Cicero ad Atticum, part of Book I.; Plautus, Captivi.

C.—The lectures were illustrated by reference to a collection of electrotype copies of ancient coins and gems.

D.—The students prepared a portion of the text-book for each lecture; they also wrote Latin exercises in prose and verse.

E.—Students in Arts.

F.—Thirty-eight students, all matriculated.

G.—Satisfactory.

H.—Satisfactory.

B. LEWIS.

REPORT of the PROFESSOR of ENGLISH.

A.—English Literature, 2 terms; History, 2 terms; English Language, 1 term. 2. First term—8 weeks (History), 8 weeks (English Literature); second term—10 weeks (History), 10 weeks (English Literature); second term—10 weeks (English Language). 3. Six in the first term; nine in the second term. History,—Monday, Wednesday, Friday, 1-2; English Literature,—Tuesday, Thursday, 12-1,—Saturday, 11-12; English Language,—Tuesday, Thursday, 11-12; Saturday, 10-11.

B.—History—European History, from the Decline of the Roman Empire to the close of the 18th century. English Literature: English Language—From the Anglo-Saxon period to the present time.

C.—Bell's Historical Tables; Von Spruner's Maps.

D.—Written exercises on the subjects discussed in lecture. Original composition.

E.—Arts and Medicine.

F.—History, 6 students; English Literature, 7 students; English Language, 20 students.

G.—Conduct good.

H.—Condition of the department satisfactory.

Extra Class, in English Language and Composition, comprising students of the fourth year.—Two terms; ten weeks of lectures. Number of students, 3.

Sanskrit Class.—Two terms; 19 weeks of lectures. Number of students, 3.

WILLIAM RUSHTON.

Appendix F.

Reports from Professors.

Report of the Professor of Modern Languages.

A.—1. The duration of each course of French was of 3 terms; 1 course of Italian, 2 terms. 2. The number of weeks of lectures in the first term was 9, of 13 in the second term, and of 6 in the third term. 3. The number of lectures weekly was of 3 in each French class, and of 2 in the Italian class.

B.—The three courses of lectures on the French Language and Literature, consisted of reading, composition, instruction in comparative grammar. The text books being, Achille Comte's *Lectures sur les Sciences*, Demogest's *Littérature Française*, and plays of Racine and Molierè. Silvio Pellico and Tasso, were the authors read in the Italian class.

C.—The lectures not illustrated by any diagrams, &c., &c.

D.—The tutorial method was employed besides the lectures; portions of text-book being prepared by the students, and compositions being required from them.

E.—The students in modern languages belong to the Faculties of Medicine, of Arts, and to the Engineering School.

F.—The number of students attending the medical French class, was 44; number of lectures, 75. The students of the senior French class, numbered 22; lectures 75; and those of the junior French, namely, the third class, were 18; with also 75 lectures. The Italian class had 10 students, and 24 lectures.

G.—The attendance and conduct of the students was most satisfactory.

H.—The condition of the department and accommodation very good.

R. De Vericour.

Report of the Professor of Logic and Metaphysics.

A.—On Logic and Metaphysics. 1. Logic, 1 term; Metaphysics, 2 terms. 2. Two terms, eight weeks; 1 term, thirteen weeks. 3. Logic, Tuesdays and Thursdays, at two o'clock; Saturdays, at nine. Metaphysics, Tuesdays and Thursdays, at one o'clock; Saturdays, at ten o'clock.

B.—Logic, Deductive and Inductive—Aldrich, parts of Mill, Baynes, &c. Metaphysics, History of Philosophy and Psychology; History of Philosophy of the University of France.

C.—No illustrations are used except such as are drawn or written on the board during the course of the lectures.

D.—Both the tutorial and professorial systems are used.

E.—Logic, second year's students in Arts; Metaphysics, third year's students in Arts.

F.—Logic, sixteen; Metaphysics, six—all matriculated. Attendance very satisfactory.

G.—Conduct of students in the class-rooms unexceptionable.

H.—The lecture-room assigned to the Mental Sciences was consumed by the fire which destroyed the left wing of the College. Great inconvenience has resulted to the department from the way in which the lecture-rooms and other apartments in the new building have been allotted.

G. J. Read.

Report of the Professor of Mathematics.

A.—Each course of lectures extends over 3 terms. The number of weekly lectures is 12. The lectures are delivered on Monday, Wednesday, and Friday, at 11, 12, 2, and 3 o'clock.

B.—Pure mathematics. Text-books recommended are Potts' Euclid, Colenso's Arithmetic, Todhunter's Algebra, Trigonometry, Conic Sections, Differential and Integral Calculus, Salmon's Conic Sections, Drew's Geometrical Conics, Frost and Wolstenholme's Solid Geometry, Boole's Differential Equations.

C.—Lectures are illustrated by diagrams and apparatus.

D.—Portions of text-books are pointed out and recommended. Problems set every Monday in each class.

E.—Arts and Engineering.

F.—In the two junior classes about 50; in second year's class about 15; in extra class 4.

G.—Good.

H.—The lecture-room is sufficiently good, but the Professor has no private room to prepare his lectures in, or to enable students to consult him after lecture; the only room at all available for such a purpose being now occupied by four or five Professors.

ROBERT ROMER.

REPORT of the PROFESSOR of NATURAL PHILOSOPHY.

A.—Six courses. 1. Each 3 terms. 2. In the first term, lectures were delivered 7 weeks; in the second, 13 weeks; and in the third, 4 weeks. 3. In the senior class of Experimental Physics, and the honor class in Mathematical Physics, 3 lectures were delivered in each week. In each of the other classes 2 lectures in each week.

B.—In the classes of Experimental Physics, the subjects were the Elements of Mechanics, Hydrostatics, Optics, and Astronomy; also Heat, Magnetism, and Electricity. Text-books:—Ganot, Traite de Physique. In Mathematical Physics, Newth's Mechanics, Todhunter's Statics, Tait and Steel, Dynamics; Walton's Examples; Lloyd's Light and Vision; Brinkley's Astronomy. In Engineering Physics, Tate's Exercises in Mechanics; Twisden's Practical Mechanics; De Pambour's Theory of the Steam-Engine.

C.—The lectures in Physics were illustrated by experiments and diagrams.

D.—In Mathematical and Engineering Physics, the tutorial method was used, and problems proposed as exercises.

E.—The senior class of Experimental Physics was attended by students of the second year in Arts, and the second year in Engineering; the honor course in Mathematical Physics, by students of the third year in Arts and Engineering; the honor course in Experimental Physics, by students of the third year in Arts; the class of Engineering Physics, by students of the third year in Engineering; the junior class of Experimental Physics, by students of the first year in Medicine.

F.—Senior class of Experimental Physics 32; junior 47; Mathematical Physics (honor) 8; Experimental Physics (honor) 4; Mathematical Physics (Engineering), 51; Engineering Physics, 8. The attendance was regular in all.

G.—The conduct of the students was satisfactory.

H.—The arrangements for carrying on the business of the department were satisfactory.

JOHN ENGLAND.

Appendix F.

Reports from Professors.

Report of the Professor of Natural History.

A.—One course on Zoölogy and Botany. 1. The course consisted of seventy lectures, and extended over three terms. 2. The first term included 7; the second, 12; and the third, more than 4 weeks of lectures. 3. Three lectures weekly, at 3 P.M., on Mondays, Wednesdays, and Fridays.

B.—The course embraced lectures on the principles of Zoölogy and Botany, and on the Structure and Classification of Plants and Animals. The text-books used were Knox's translation of Milne Edwards' Zoölogie; together with Henfrey's Elementary Course of Botany. Bentham's Handbook of the British Flora; Lindley's Descriptive Botany; and Carpenter's Principles of Comparative Physiology, were also recommended.

C.—The lectures were illustrated by reference to specimens and diagrams.

D.—The professorial method of instruction was chiefly employed.

E.—The lectures were attended by students of the third year in the Faculty of Arts, of the first year in the Faculty of Medicine, and by the senior scholar in Natural History.

F.—Seven students in the Faculty of Arts, forty-three in the Faculty of Medicine, and four non-matriculated students were present during the course. Five of these were disqualified for insufficient attendance.

G.—The conduct of the students was satisfactory.

H.—The general condition of the department, of which the Professor has charge, is tolerably efficient. The Professor is still much in want of a private room, wherein to prepare himself to meet his class.

J. Reay Greene.

Report of the Professor of Chemistry.

A.—First course of 3 terms; first term of 8 weeks; second term of 13 weeks; third term of 4½ weeks. Three lectures per week on Monday, Wednesday, and Friday, from 11 to 12. Second course of three months. Two classes attended in the laboratory. The first class on Monday and Wednesday, from 2 to 4. The second class on Tuesday, Thursday, and Friday, at 3; and at 11 on Thursday.

B.—First course; Systematic Chemistry, embraced the laws of combination, history of non-metallic and metallic substances, theories of organic chemistry, and description of organic compounds. Text-books, Fownes, Graham, Kane, Miller, Regnault. The second course is practical, and conducted in the laboratory.

C.—Illustrations by diagrams, specimens, and experiments.

D.—In first course by lectures, and by explanations of difficulties after lectures to students. In second course, each student works under the professor's superintendence.

E.—Students of the Faculty of Medicine, Engineering, and Arts, attend first course, and Medical students alone the second course.

F.—In the first course 67 matriculated and 3 non-matriculated attended; and in the second 56 matriculated and 4 non-matriculated. The general attendance was good.

G.—General conduct good, and state of discipline also good.

H.—The department is well provided with supplies, fitments, and apparatus for the purposes of instruction.

J. Blyth, M.D.

REPORT of the PROFESSOR of GEOLOGY and MINERALOGY.

A.—The course of lectures on Geology and Mineralogy occupied the 3 terms of the session; 8 weeks in the first term, 12 weeks in the second, and 5 weeks in the third, being the periods over which the lectures extended. The days of lectures were Mondays, Wednesdays, and Fridays, and the hour from 1 to 2, P.M.

B.—The title of the course of lectures was Physical Geography, Geology and Mineralogy; which included, besides Physical Geology, Palæontology; and the books recommended in the course were Hughes' Outlines of Physical Geography, Somerville's Physical Geography, Herschell's Physical Geography, Page's Elementary Text-book of Geology, Lyell's Principles and Elements of Geology, Juke's Manual of Geology, Murchisen's Siluria, and Nicol's Manual of Mineralogy.

C.—The lectures were illustrated by maps, sections, diagrams, and specimens.

D.—The mode of instruction was professorial; and during the latter part of the course, practical instruction in field Geology was given.

E.—All the students, except two, who were Arts' students, belonged to the department of Engineering.

F.—The number of students attending the course was seventeen, all being matriculated students of the second year's engineering, except the two above alluded to; and the character of the attendance was regular.

G.—The conduct of the students during the lecture, and the state of discipline were very good.

H.—The fitments, supplies, and accommodation are such as to meet the requirements of the class; and as regards cleanliness, the Professor can report more favourably than in the previous return.

ROBERT HARKNESS.

REPORT of the PROFESSOR OF CIVIL ENGINEERING.

A.—1. Each course of lectures extends throughout the 3 terms. 2. In the 1st term, 8 weeks; 2nd, 13; 3rd, 4½. 3. Three lectures weekly in each course. Students of the first year, Monday, Wednesday, and Friday, at ten, A.M.; second year, Tuesday, Thursday, and Saturday, at ten, A.M.; third year, Monday, Wednesday, and Friday, at one, P.M. Office open Tuesday, Thursday, and Saturday, at ten, A.M., to two, P.M.

Total number of lectures :—

To students of first year,	56
„ second year,	60
„ third year,	64
In office,	59
Total,	239

B.—*First year*—Monday, Wednesday, and Friday.—Subject of lectures—Orthographic Projection; Descriptive Geometry; Shadows; Isometric Projection; Perspective; Principles of Architecture. Text-books—Hall's Descriptive Geometry; Engineer and Machinist's Drawing Book; Rickman's Architecture. *Second year*—Tuesday, Thursday, and Saturday.—Subject of lectures—Surveying and Levelling. Text-

Appendix F.
Reports from Professors.

books—Rankine's Civil Engineering; Cotton's Manual of Railway Engineering; Williams' Geodesy. *Third year*—Monday, Wednesday, and Friday.—Materials used in construction; principles of construction of bridges, roads, railways, canals; hydraulic engineering; strength of materials; principles of the construction of the different machines employed by the engineer. Drawing Office, attended by all the classes—Tuesday, Thursday, and Saturday.—The first year's class are chiefly employed in drawing the problems given at lectures, and a few easy examples of their application. The second and third year's classes, in making working drawings of examples of the subjects of lectures, and in mapping.

C.—Illustrated by reference to maps, drawings, and instruments.

D.—The tutorial and professorial methods of instruction are adopted according to the subject of the lecture. Instruction is given in the field.

E.—Students in the department of civil engineering.

F.—

Students of first year,	Mat.	16	N. Mat.	–
„ second year,	„	17	„	1
„ third year,	„	7	„	–
Attending office only,	„	1	„	–
		41		1

The majority of the students have attended tolerably regularly. I believe the regularity of the students would be much improved by a modification of the present rules relating to attendance on lecture.

G.—The conduct of the students has been very good and the state of discipline satisfactory.

H.—The supply of drawings, instruments, &c., is now to a great extent replaced, some additions being made to it every year.

ALEXANDER JACK.

REPORT of the PROFESSOR of JURISPRUDENCE and POLITICAL ECONOMY.

A.—(1) Political Economy, 21 lectures; (2) Jurisprudence, 22 lectures; (3) Civil Law, 24 lectures. Four in each course.

B.—*Political Economy.*—The principles which regulate rent, profit, and wages; the principles of commerce, of taxation, of the funding system, and of currency and banking. Text-books—J. S. Mill, Fawcett, Mills, M'Culloch, A. Smith. *Jurisprudence.*—J. S. Mill's Logic, chapters on Social Science; J. S. Mill's Political Economy, chapters on Property and the Functions of Government; Stephens' Criminal Law; Maine's Ancient Law; Lectures of the Professor, &c. *Civil Law.*—Sandar's Justinian.

C.—No.

D.—The tutorial method is employed in each course, but not to a great extent in Jurisprudence, from the want of text-books.

E.—In Political Economy Arts' Students; in Jurisprudence and Civil Law Law Students.

F.—In Political Economy, 3 matriculated; in Jurisprudence, 6 matriculated; in Civil Law, 7 matriculated.

G.—Very good.

H.—Inconvenienced by want of a lecture room.

R. H. MILLS.

REPORT of the PROFESSOR of ENGLISH LAW.

A.—Three courses of lectures which were given in the first and second terms during 3 weeks of each term. Four lectures weekly—on Tuesday, Wednesday, Thursday, and Friday, to each of the 3 classes, but in consequence of the non-attendance of the students, but 17 lectures were given to the class of the second, and 15 to the class of the third year. The prescribed number of 24 were given to the class of the first year.

B.—The title of the course to the class of the first year was "the Law of Property and of Conveyancing," in which instruction was given in the use and application of approved precedents. The text-book used in the class was Williams on Real Property, Davidson's and Bythewood's precedents were adopted. The first volume of Blackstone's Commentaries, Stephens' edition, and the second volume of Kerr's edition, were recommended.

The title of the course to the class of the second year was "The Law of Personal Property" and "Equity," the text-books used were "Williams on Personal Property," and "Smith's Manual of Equity;" the second volume of "Blackstone's Commentaries;" "Smith on Contracts;" "Chitty on Contracts;" "Smith's Mercantile Law;" "The Bankrupt and Insolvent Act" were recommended.

The title of the courses to the class of the third year was "Common and Criminal Law;" the text-book was "Blackstone's third and fourth volumes;" "Broom's Common Law;" "Archbold's Pleading and Evidence in Criminal Law;" "Broom's Maxims;" "Smith's Leading Cases" were recommended.

C.—The subjects were illustrated by precedents, and as far as practicable by the perusal of cases, &c., and reference to reports.

D.—The instruction was chiefly tutorial, and the students were examined in the several subjects orally.

E.—Arts and Law.

F.—Six in the class of the first, 7 in the class of the second, and 2 in the class of the third year. All matriculated; the attendance in the class of the first year was very good. In those of the second and third most irregular.

G.—The general conduct at lectures was good. No breach of discipline took place.

H.—The accommodation during the repair of the college building was temporary, but sufficient for the purposes of the classes.

MICHAEL BARRY.

REPORT of the PROFESSOR of ANATOMY and PHYSIOLOGY.

A.—Two courses delivered daily (Saturday excepted) during the Medical Session; Anatomy and Physiology at one o'clock; Anatomical Demonstrations at twelve o'clock. The roll was called at 115 lectures upon Anatomy and Physiology; it was also called at 105 Anatomical Demonstrations.

B.—One course entitled Anatomy and Physiology; the other course Practical Anatomy and Anatomical Demonstrations. The courses of dissections performed by the students were superintended by the Professor of Anatomy and Physiology, assisted by Dr. Shinkwin, Demonstrator of Anatomy.

The course of Anatomy and Physiology comprehends the following subjects:—1. Nature of life and organization; general description of the vital functions; general and special description of the textures of the

Appendix F.

Reports from Professors.

human frame; development of tissues and other branches of Histology; composition of the fluids, viz., the blood, lymph, chyle, saliva, gastric juice, bile, &c. :—2. Physiological Anatomy of the organs of support and locomotion, circulation, respiration, digestion, chylification, absorption, secretion, excretion; the brain and its membranes; the spinal cord, ganglia and cerebral nerves; the organs of the senses, &c. :—3. The course comprehends various branches of Human Physiology; the above mentioned subjects are illustrated by the use of the microscope.

The course of Anatomical Demonstrations includes the special description of the bones, joints, ligaments, arteries, veins, nerves, membranes, and fascia; it also embraces Regional and Surgical Anatomy.

The text-books are the following, viz. :—Todd and Bowman on Physiology and Physiological Anatomy; Carpenter's Physiology; Valentin's Physiology; Kirk's Handbook of Physiology; Quain's Anatomy, by Drs. Sharpey and Ellis; Harrison's Anatomy; Wilson's Vade Mecum; Gray's Anatomy; Ellis's Anatomical Demonstrations; Corbett on the Arteries V.; Köllicer, Gerber, Hassal, and Beale on Microscopic Anatomy.

C.—The lectures are illustrated by recent and prepared dissections; by charts, plates, diagrams, and anatomical preparations. Minute anatomy of the tissues is illustrated by recent and preserved microscopical specimens. The principles of Physiology are elucidated by experiments instituted upon animals, when deemed necessary.

D.—The students examined *viva voce*, upon subjects treated of in the course; written replies to questions proposed are resorted to, at the examinations held in October for Medical Scholarships, and at the Sessional Examinations, which take place in May.

E.—The courses have been attended only by students of Medicine and Surgery.

F.—The course of Anatomy and Physiology was attended by 110 students; the course of Practical Anatomy was attended by 97 students. Total number of matriculated students in Anatomical classes, 121; not matriculated, 11.

G.—The students have attended the Professor's lectures with great regularity.

H.—The supplies of preparations, plates, charts, and diagrams, are good; but it is most desirable that additions should be made to the anatomical collection. The rooms are kept in a state of cleanliness. Accommodation at present extremely defective, and quite disproportioned to the numbers in attendance upon the classes; it is of extreme consequence that the anatomical buildings should be constructed as speedily as possible.

J. H. Corbett.

Report of Professor of Practice of Physic.

A.—Lectures on the Practice of Physic, consisting of 2 terms—the first 7 weeks, the second about 16, delivered on Monday, Wednesday, and Friday, at 3 o'clock.

B.—Lectures on the Practice of Physic, commencing with fevers, passing then to local diseases, those of the brain and its membranes, to diseases of the organs situated in the pectoral and abdominal cavities, then to skin diseases, and others not included in this classification.

C.—Illustrated by reference to *post mortem* preparations and plates.

D.—The students are examined in the subjects of the lectures once a week.

E.—Faculty of Medicine.

F.—Matriculated students, 25; non-matriculated, 3; considerable regularity of attendance.

G.—Conduct and discipline exemplary.

H.—The condition of the fitments in my department is satisfactory.

D. C. O'Connor, M.D.

Report of Professor of Surgery.

A.—Six months—26 weeks; 3 lectures weekly, Tuesday, Thursday, Saturday.

B.—Surgery—Theory and Practice of Surgery, and Operative Surgery; Erechsen, Miller, and Cyclopædia of Practical Surgery.

C.—Operations on the Human Subject—Diagrams, Microscope, Morbid Preparations, and Pathological specimens.

D.—Occasional examinations.

E.—Medical students.

F.—Thirty-seven matriculated; 2 non-matriculated.

G.—Very good.

H.—Very inefficient.

W. T. Tanner.

Report of the Professor of Midwifery.

A.—Midwifery. Six months' course. Over 60 lectures. Three lectures weekly, Monday, Wednesday, and Friday, four o'clock.

B.—Midwifery. Physiology and Pathology of the functions of reproduction, gestation, and parturition. Parturition in its various bearings, theoretical and practical. Diseases of childbed. Management of infants.

C.—Diagrams, models, casts, preparations, &c.

D.—

E.—Medical.

F.—Matriculated, 21; non-matriculated, 5; total, 25. General attendance, good.

G.—Good.

H.—Deficient in many respects, in consequence of losses by the fire not yet replaced.

J. R. Harvey.

Report of Professor of Materia Medica.

A.—Six months' course. Twenty-six weeks. Three lectures a week, Tuesdays, Thursdays, and Fridays, from two to three, P.M.

B.—Materia Medica and Therapeutics, comprising the general outline of the action of medicines, and the particular description of the individual substances employed; their actions, uses, and applications. Text-books—the treatises of Pereirra, Royle, Oesterten, Clarus, Trousseau, and Pidoux.

C.—Illustrated by diagrams, microscopical preparations, and plants from the College Botanical Garden.

D.—Special instruction in the manner above stated.

E.—Students of the Faculty of Medicine.

F.—Fifty-two, of whom 2 non-matriculated.

G.—General conduct good.

H.—Department as yet very insufficiently supplied, as but a very small sum was allowed to supply the total loss sustained by the fire.

Purcell O'Leary.

Appendix F.

Reports from Professors.

REPORT of the PROFESSOR of MEDICAL JURISPRUDENCE.

A.—Three months. Lectures on Tuesday, Thursday, and Friday, at two, P.M.

B.—The subjects chiefly enlarged upon were toxicology, infanticide, injuries, wounds, and the rules regulating the admission of evidence in legal procedure. Text-books—Tayler and Guy's. The perusal of leading cases reported, as for example, Lord Ferrar's case, Hadfield's case, the Gardner and Douglas Peerage cases.

C.—By experiments.

D.—By lectures, illustrated by experiments.

E.—Students of the Faculty of Medicine.

F.—Twenty-three matriculated, and 2 non-matriculated attended.

G.—Conduct good, and discipline excellent.

H.—The class of Medical Jurisprudence is at present dependent on the Chemical department for apparatus and materials to illustrate the toxicological portion of the course.

J. BLYTH, M.D.

Appendix G.

List of successful Candidates

APPENDIX G.

LIST of UNIVERSITY DEGREES, DIPLOMAS, and HONORS obtained by STUDENTS from QUEEN'S COLLEGE, CORK, at the COMMENCEMENTS in JUNE and OCTOBER, 1865, and in the PEEL EXHIBITIONS.

DEGREE OF LL.B.

Robert Romney Kane, University of London *ad eundem.*

DEGREE OF M.D.

Unclassed:
- Henry John Brown.
- Cornelius F. Buckley.
- Patrick Heas.
- Oscar D. Honiball.

Unclassed—*continued.*
- William B. Johnstone.
- Mark Long.
- John Henry Newman.
- James J. L. Rattan.

DEGREE OF M.CH.

- Richard M. Graham, M.D.
- Patrick Heas, M.D.
- Oscar D. Honiball, M.D.
- Henry M'N. Jones, M.D.
- William Henry Jones, M.D.
- Robert Dwyer, M.D.
- Michael O'K. Morris, M.D.
- John Henry Newman, M.D.
- Patrick O'Keeffe, M.D.
- Stephen O'Sullivan, M.D.
- George Sigerson, M.D.

DEGREE OF M.A.

Second Class:—James B. Armour, Second Class in Ancient Classics.

Unclassed:—James Maybury Beamish.

DEGREE OF B.A.

First Class:

James A. Marcel, First Class in Modern Languages.
Edward D. J. Wilson, First Class in Classics, Second Class in Modern Languages, the Third Class in English Metaphysics and Political Economy.

Second Class:

John Connor, Second Class in Logic, Metaphysics, and Political Economy.

Third Class:

James Chatterton, Third Class in Experimental Science.
Alfred G. Dann, Third Class in Mathematical Science.

Unclassed:
- Cornelius F. Buckley.
- John Lindsay.

Unclassed—*continued:*
- John O'Callaghan.

A List of University Degrees, Diplomas, &c.—*continued.*

Appendix G.

List of successful Candidates.

Diploma in Civil Engineering.

Second Class:—William Perrott.

Third Class:—Arthur Hill.

Unclassed:—Alexander P. M'Carthy.

Exhibitions founded by Public Subscription at First University Examination in Arts.

Edward D. Wilson, First, £20 a year for three years, and £10 a year for three years, as the best answerer in Ancient Classics.

Michael Burke, Second, £15 a year for three years.

First University Examination in Engineering.

William Perrott, Second, £15 a year for two years.

First University Examination in Arts.

First Class:—Michael Burke and Edward D. J. Wilson.

Second Class:—James A. Marcel.

Third Class:—Michael F. Barry, James Chatterton, and Alfred G. Dann.

Unclassed:
J. Lindsay.
Francis Nunan.
John O'Callaghan.

Unclassed—*continued:*
Robert Pulmtaft.
Thomas H. Sandiford.

First Examination in Medicine.

Third Class:—Thomas Ryan.

Unclassed:
William Collins.
Patrick Cremen.
Matt. M. Galway.
George J. Gibson.
Oscar D. Honiball.
Wm. B. Johnstone.
Thomas Kingston.
William H. Macnamara.
Rosslewin Morgan.

Unclassed—*continued:*
Hickman Morgan.
John O'Connor.
William A. O'Connor.
Jeremiah O'Grady.
Robert V. Power, B.A.
James J. L. Ratton.
John Roche.
Edmond Townsend, B.A.
George Wood.

First Examination in Engineering.

First Class:—William Perrott.

Third Class:—Arthur Hill.

Unclassed:—Alexander P. M'Carthy and Philip W. W. M'Carthy.

APPENDIX H.

Appendix H.

Regulations regarding Competition for the Special Prizes.

Order of Council, Regulations, and Papers of Questions for the Special Prize Examinations.

[The order of Council and Regulations remaining as for last year, may be seen in last report.]

Latin.

Translate:—

Cicero—*Pro Plancio*, XVIII.

Neque ego nunc consilium reprehendo tuum, quod non eas tribus, quibus hic maxime notus erat, edideris: sed a te doceo consilium non servatum senatus. Etenim quis te tum audiret illorum, aut quid diceres? Sequestremne Plancium? respuerent aures, nemo agnosceret,

Appendix H.

Regulations regarding Competition for the Special Prizes.

repudiarent. An gratiosum? illi libenter audirent: nos non timide confiteremur. Noli enim putare, Laterensis, legibus istis, quas senatus de ambitu sancire voluerit, id esse actum, ut suffragatio, ut observantia, ut gratia tolleretur. Semper fuerunt boni viri, qui apud tribules suos gratiosi esse vellent. Neque vero tam durus in plebem noster ordo fuit, ut eam coli nostra modica liberalitate noluerit: neque hoc liberis nostris interdicendum est, ne observent tribules suos, ne diligant, ne conficere necessariis suis suam tribum possint, ne par ab iis munus in sua petitione respectent: haec enim plena sunt officii, plena observantiae, plena etiam antiquitatis. Isto in genere et fuimus ipsi, quum ambitionis nostrae tempora postulabant, et clarissimos viros esse vidimus, et hodie esse videmus quam plurimos gratiosos. Decuriatio tribulium, descriptio populi, suffragia largitione devincta severitatem senatus et bonorum omnium vim ac dolorem excitarunt.

PLAUTUS—*Trinummus*, Act IV., sc. 2, v. 19.

Ch. Quam magis specto, minus placet mi ea hominis facies: mira sunt
Ni illic homost aut dormitator aut sector zonarius.
Loca contemplat, circumspectat sese atque aedis noscitat:
Credo edepol quo mox furatum ueniat speculatur loca.
Magis lubidost opseruare quid agat: ei rei operam dabo.
Su. Has regiones demonstrauit mihi ille conductor meus:
Aput illas aedis sistendae mihi sunt sucophantiae.
Foris pultabo.
Ch. Ad nostras aedis hic quidem habet rectam viam:
Hercle opinor mi aduenienti hac noctu agitandumst uigilias.
Su. Aperite hoc, aperite, heus, ecqui his foribus tutelam gerit?
Ch. Quid, adulescens, quaeris? quid uis? quid istas pultas?
Su. Heus, senex,
Lesbonicum hic adulescentem quaero, in his regionibus
Ubi habitet, et item alterum ad istanc capitis albitudinem,
Calliclem [quem] aibat uocari qui has mihi dedit epistulas.
Ch. Meum gnatum hic quidem Lesbonicum quaerit et amicum meum
Quoi ego liberosque bonaque commendaui Calliclem.
Su. Fac me si scis certiorem, hisce homines ubi habitent, pater.
Ch. Quid eos quaeris? aut quis es? aut unde's? aut unde aduenis?
Su. Census quom [sum], iuratori recte rationem dedi.

1. Notice some ancient Latin inscriptions, and show their importance, considered with reference to the language and history of Rome.

2. From what sources did Livy derive his history?

3. Mention the forms of the following words used by Plautus:—*adegerint, ceperimus, credam, dixeris, impetraturum esse, tempore.*

4. When did Juvenal flourish? Name his most celebrated contemporaries.

5. Draw a map of ancient Rome. Mark in it the Mausoleum of Augustus, the Theatre of Pompey, the Forum of Trajan, the Baths of Titus, and the Cloaca Maxima.

Translate into Latin:—

A likeness of inclinations in every particular is so far from being requisite to form a benevolence in two minds towards each other, as it is generally imagined, that I believe we shall find some of the firmest friendships to have been contracted between persons of different humours; the mind being often pleased with those perfections which

are new to it, and which it does not find amongst its own accomplishments. Besides that a man in some measure supplies his own defects, and fancies himself at second-hand possessed of those good qualities and endowments which are in the possession of him who, in the eye of the world, is looked upon as his other self.

Translate into Alcaic verse:—

I see before me the Gladiator lie:
He leans upon his hand—his manly brow
Consents to death, but conquers agony,
And his droop'd head sinks gradually low—
And through his side the last drops, ebbing slow
From the red gash, fall heavy, one by one,
Like the first of a thunder-shower; and now
The arena swims around him—he is gone
Ere ceased the inhuman shout which hail'd the wretch who won.

B. Lewis, *Professor.*

English Literature.

1. What is the poem entitled Beowulf?
2. Give some account of the poem ascribed to Caedmon; and explain the alliterative versification employed in Anglo-Saxon poetry.
3. Enumerate the prose writings of King Alfred, and estimate his literary influence.
4. What is the "Brut d'Angleterre" of Wace?
5. What is Layamon's "Brut?"
6. Give a sketch of English society in the Fourteenth Century, founding your remarks upon the Prologue to Chaucer's "Canterbury Tales."
7. Give an analysis of the First Book of Spenser's "Faerie Queene."
8. Enumerate the principal dramas of Ben Jonson.
9. Compare the sonnets of Shakespeare, Milton, and Wordsworth.
10. Give a short review of Dryden's "Absalom and Achitophel."
11. Characterize the historical style of Robertson, Hume, and Gibbon.
12. Criticize the poetry of Tennyson.

English Language and Composition.

I.—*Language.*

1. Distinguish between the radical and the formal parts of language; and inquire whether there are any reasons for supposing that the formal parts of language were once substantial.

2. Prove—

(*a*) That the same word takes different forms in different languages.
(*b*) That the same word takes different forms in one and the same language.

3. State and explain Grimm's Law of letter-change.
4. Is it true that the English language is chiefly composed of broken Saxon and broken Latin?
5. The Latin element, in English, has been traced to four periods; determine these periods, and give examples under each.

Appendix H.

Regulations regarding Competition for the Special Prizes.

6. Give the etymology of these words: *basket, gown, darn, house, thatch, corn, chivalry, parliament, homage, feudal, avalanche, bezant, cambric, chamberlain, friar, gospel, fetlock, harbinger, impair, simony, soldier, venison.*

7. Prove that the variety of derivatives in English enables a sophist to assume the appearance of giving a reason, when in fact he is only repeating his assertion in words taken from another source.

8. Note any changes of signification which have taken place in these words: *let, owe, censure, silly, cunning, villain, lewd, lover, apprehend.*

9. Show that the English alphabet is at once inconsistent, deficient, and redundant.

II.—*Composition.*

10. What are the uses of grammar, logic, and rhetoric, in the study of composition?

11. Discuss the best methods of exercise in English composition; and among others, consider the practice of translating from the Greek and Latin classics.

12. What rules and cautions are to be observed in the use of metaphorical language?

13. What is the periodic style? To what kinds of prose is it best suited?

HISTORY.

I.—*European.*

1. Review the constitution of the Roman Empire under Augustus, Diocletian, and Constantine.

2. What was the condition of the conquered provinces under the Goths, the Franks, and the Saxons?

3. What was the nature and extent of Charlemagne's empire?

4. Explain this passage of Hallam: "During the tenth and eleventh centuries it appears that alodial lands in France had chiefly become feudal."

5. State briefly the controversy of the Popes and the Emperors on the subject of Investitures.

6. Estimate the consequences of the Crusades.

7. What were the principal wars of the Reformation? At what date may they be said to have terminated?

8. What were the principal wars of the Balance of Power.

II.—*English.*

9. Discuss the constitution of the Witenagemot, and that of the Anglo-Norman Great Councils.

10. In what respects did Anglo-Norman feudalism differ from that of the Continent?

11. Enumerate, from Magna Charta to the Bill of Rights, the various enactments whereby our liberties have been secured.

12. Compare the extent of the Royal Prerogative under the Plantagenets, the Tudors, and the Stuarts. Whence did the doctrine of the Divine Right of kings originate?

13. Trace the increasing power of the House of Commons, from the age of the Stuarts to the present time.

14. What is the origin of Trial by Jury?

WILLIAM RUSHTON, *Professor.*

Modern Languages.

FRENCH.

Give, in French, a brief account of the pulpit eloquence during the reign of Louis XIV., and especially of Bossuet, Fénelon, and Massillon, stating what you know of their lives and personal character.

GERMAN.

State, in German, what you know of the life and works of Schiller, and of his influence on German literature.

ITALIAN.

State, in Italian, what you know of the life and works of one of the following authors :—Alfieri ; Manzoni ; Silvio Pellico.

R. de Vericour, *Professor.*

Physics.

1. Explain the method of ascertaining at any part of the earth's surface the following magnetic elements :—Declination, inclination, and intensity.
2. How from a given surface of metals would you form a galvanic battery to produce the maximum intensity in a given circuit ?
3. In the Leyden jar, from knowing the free electricity on one coating, how would you compute the total charge ?
4. A copper plate is made rotate in a horizontal plane near a magnet which can move in a parallel plane ; explain the mutual action of the magnet and plate.
5. Describe and explain the action of the earth on a horizontal current capable of rotating round a vertical axis.
6. Describe Tyndall's method of observing the diathermaneity of gases.
7. Explain the method used by M. Pouillet to ascertain the amount of solar heat received by the earth.
8. Describe the several methods used to ascertain the specific heat of bodies.
9. When a thin plate of uniaxial crystal, with its faces perpendicular to its optic axis, is placed in a polariscope, describe and explain the resulting appearances.
10. Explain the phenomena of diffraction of light.

Geology.

1. What are the solid and gaseous products evolved by volcanoes ?
2. Describe the phenomena of *false-bedding ;* and from what does *false-bedding* result ?
3. What does the term *unconformability* signify ; and what inferences can be drawn from this arrangement of rocks ?
4. What forms do Doleritic Rocks assume ; and what are the minerals which enter into the composition of these rocks ?

Appendix H.

Regulations regarding Competition for the Special Prizes.

5. What is the position, and what are the characteristic fossils of the Llandovery beds?

6. What genera of Trilobitis are most characteristic of the Lower Silurians?

7. In what portion of the carboniferous formation do the most valuable of the Scotch coal seams occur?

8. In what formation has the earliest air-breathing mollusc been found; and under what conditions was it discovered?

9. What fossils are common to the *Avicula contorta* zone, and the underlying members of the Triassic formation?

ROBERT HARKNESS, *Professor.*

Appendix I.

Report of the Librarian.

APPENDIX I.

SPECIAL REPORT of the LIBRARIAN.*

The number of volumes in the library at the date of this report is 17,255. They may be classified as follows:—

Pure Mathematics,	553	History,	2,387
Mixed do.,	548	Biography,	528
Chemistry and Mineralogy,	900	Antiquities,	239
Geology and Paleontology,	548	Geography, Voyages, Travels, &c.,	558
Botany and Zoölogy,	1,281	Engineering,	414
Medical Science and Literature,	1,844	Agriculture,	195
Theology,	315	Fine Arts,	191
Logic and Metaphysics,	401	Bibliography,	79
Political Economy, Jurisprudence, &c.,	464	General Encyclopædias and Reviews,	617
Education,	159		
Law,	740	Total,	17,255
Ancient Classical Literature,	1,766		
Celtic Literature,	54	Increase in number of volumes for past year,	489
English Language and Literature,	1,192		
Foreign do. do.,	1,282		

Thirty-five volumes were presented to the library. A separate catalogue of those books, with the names of the donors, is kept in the library.

A few volumes are at present missing from the library; but I have good reason to believe that they are not lost, but either misplaced or borrowed irregularly.

The discipline of the library is effectively maintained. No case of breach of any library regulations requiring special remark occurred during the year.

All the periodicals and serial works have been removed to the consulting library (the Examination Hall). As no adequate means have been adopted for heating this apartment, the books are already beginning to suffer from damp.

Cleanliness and order are properly attended to. The attention and promptitude of Messrs. Hodges and Smith of Dublin, continue to give me every satisfaction.

MATTHIAS O'KEEFFE, *Librarian.*

Appendix K.

Copies of Accounts furnished by Bursar.

APPENDIX K.

COPIES of the several ACCOUNTS, No. 1 and No. 2, furnished by the BURSAR, showing the FINANCIAL POSITION of the College.

No. 1.

GENERAL ABSTRACT of the ACCOUNT of the PRESIDENT or VICE-PRESIDENT, and BURSAR, of QUEEN'S COLLEGE, CORK, from 1st April, 1865, to 31st March, 1866.

DR.	HEAD OF SERVICE (RECEIPTS).	£	*s.*	*d.*
To Balance on the 1st April, 1865,		1,429	13	1
,, amount received from Paymaster of Civil Services,		9,076	12	6
,, Fees and Fines,		63	5	0
,, Balances,		3	9	7
		£10,573	0	2

CR.	HEAD OF SERVICE (PAYMENTS).	£	*s.*	*d.*
By amount paid for Salaries,		5,053	5	7
,, ,, ,,	Scholars and Prizes,	1,525	5	0
,, ,, ,,	Porters and Servants,	328	12	0
,, ,, ,,	Additional Grant,	1,472	14	0
,, ,, ,,	Extra Salaries,	549	16	4
,, ,, ,,	Balance,	5	0	0
,, Balance indebted on 31st March, 1866,		1,638	7	1
		£10,573	0	0

No. 2.

ACCOUNT of RECEIPT and EXPENDITURE of FUNDS derived from PARLIAMENTARY GRANT, and from COLLEGE FEES and FINES, from 1st April, 1865, to 31st March, 1866.

DR.	£	*s.*	*d.*
By Balance shown to Debit of Bursar, as per last account, for the year ending 31st March, 1865,	376	10	1
,, cash received from Paymaster-General, being amount of Parliamentary Grant for the year ending 31st March, 1866,	1,600	0	0
,, amount of College Fees and Fines received in year ending 31st March, 1866,	63	5	0
	£2,039	15	1

CR.	£	*s.*	*d.*
By amount included in last account in error to Debit by College Fees and Fines for the two years 1863–64 and 1864–65 having been added together and charged in both years,	109	14	1
,, Expenditure on account of Parliamentary Grant for the several College Departments:—			
Ancient and Modern Literature,	203	10	3
Mathematical, Physical, and Chemical Sciences,	189	16	0
Natural Sciences,	131	15	7
Engineering and Agriculture,	94	16	5
Medical Sciences,	134	7	10
Legal and Mental Sciences,	21	16	7
Printing, Stationery, Advertising, and Postage, and General Establishment Charges,	190	4	8
Heating and Lighting,	206	7	6
Botanic Garden and Grounds,	164	2	8
,, Expenditure on account of College Fees and Fines, including Porter's Clothing, Special Expenditure on New Grounds, &c.,	134	14	7
,, Balance to Debit of Bursar at close of 31st March, 1866,	458	8	11
	£2,039	15	1

E. M. FITZGERALD, *Bursar.*

Appendix L.

APPENDIX L.

Reports on Discipline, Punishments, and of the Deans of Residences.

REPORT of the VICE-PRESIDENT on DISCIPLINE and PUNISHMENTS; REPORTS of the DEANS of RESIDENCES of the several RELIGIOUS DENOMINATIONS.

RETURN to be filled up by the VICE-PRESIDENT and sent in to the REGISTRAR for the official information of the PRESIDENT on or before the day of for the Collegiate Session, 185–5.

A.—As to the state and efficiency of all the several departments of the College, to which the constant supervision of the Vice-President is directed by the statutes.

B.—As to the state of order and discipline in the College to which the particular attention of the Vice-President is directed by the statutes.

Signed,

By order of the President,

Registrar.

VICE-PRESIDENT'S REPORT.

A.—The several departments of the College were in a satisfactory state of efficiency.

B.—No case of breach of discipline calling for serious notice on the part of the College authorities, occurred during the session.

JOHN RYALL, *Vice-President.*

December 7, 1865.

REPORT of DEAN of RESIDENCES for STUDENTS of the ESTABLISHED CHURCH.

As far as I have had any opportunity of observing the conduct of the students who are members of the Established Church, I believe there is no ground of complaint. In the list of these students before me, there are ninety-nine names, and yet there are only four licensed houses in Cork—houses licensed for the residences of the students. For nearly nine years I have been in the habit of collecting as many of the students as could attend in some room outside the College for religious instruction, and I have invariably found them most anxious to avail themselves of every opportunity I was able to give them. I have delivered a lecture to them every week, and at the close of the session I have myself given prizes to the best answerers on the subjects of my lectures. I am long enough connected now with the College to know that even in their worldly concerns the students suffer considerably from not having had sufficient opportunities of knowing the Deans of Residences.

GEORGE WEBSTER,

Chancellor of Cork and Dean of Residences.

January, 1866.

REPORT of the WESLEYAN DEAN of RESIDENCES.

14, Henry-street, Cork,
31st March, 1866.

SIR,—As I am instructed that it is my duty, as Wesleyan Dean of Residences in the Queen's College, Cork, to report to you on the moral character of the students under my care, I beg to say that, so far as I

know, their conduct has been blameless, and it gives me extreme pleasure to bear this testimony on their behalf.

I am, sir, yours respectfully,

C. L. GRANT.

Sir R. Kane, President,
Queen's College, Cork.

REPORT of DEAN of RESIDENCES for STUDENTS of the PRESBYTERIAN CHURCH.

Cork, December 1, 1865.

SIR,—The students of the Presbyterian Church in attendance on the Queen's College, Cork, during the session 1864–5 were distinguished for their moral propriety, industry, and attention to their religious duties.

I am, yours very truly,

WILLIAM MAGILL,
Presbyterian Dean of Residences.

REPORT of DEAN of RESIDENCES for STUDENTS of the NON-SUBSCRIBING PRESBYTERIAN COMMUNITY.

December 2, 1865.

SIR,—I have to report that the conduct of the student (only one) under my charge for the session 1864–5 was very satisfactory.

I have the honour to be, &c.,

W. WHITELEGGE, *Dean of Residences.*

To the President of the Queen's
College, Cork.

Vol XXVIII
[c. 3746]

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, GALWAY,

FOR

THE YEAR ENDING 31ST MARCH, 1866.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

CONTENTS.

	Page
REPORT,	3
TABLE I.—Numbers and Religious Persuasions of Students who have entered the Queen's College, Galway, in each year from its opening,	3
TABLE II.—Numbers and Religious Persuasions of Students attending Lectures in the College, in each Session from its opening,	4
TABLE III.—Number of Students attending the Lectures of each Professor, in each year since the opening of the College,	4
TABLE IV.—Number of Lectures delivered by each Professor in each Session since the opening of the College,	5
APPENDIX:	
APPENDIX 1:	
Days and Hours of Matriculation and Scholarship Examinations, to be held in October, 1866,	10
General Regulations of the College; Lists of Officers; Courses for Matriculation and Scholarship; Exhibitions, &c.,	11
APPENDIX 2:	
Scholarship Examinations, 1865,	49
Sessional Examinations, 1865,	72

THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, GALWAY,

FOR

THE YEAR ENDING 31ST MARCH, 1866.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

In the Session 1864–65 70 students entered this College, being an increase of 11 on the entrances (59) of the preceding Session 1863–64: 169 attended the college lectures, being an increase of 4 on the numbers (165) attending lectures in Session 1863–1864.

In the accompanying tables (Nos. I. and II.) will be found the numbers who have entered the college and attended its lectures in each Session since its opening.

I.—NUMBERS and RELIGIOUS PERSUASIONS of STUDENTS who have entered the Queen's College, Galway, in each year from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849–50,	64	4	68	24	38	6	–	–	–	68
1850–51,	23	3	26	10	9	7	–	–	–	26
1851–52,	31	5	36	13	21	2	–	–	–	36
1852–53,	21	2	23	8	12	3	–	–	–	23
1853–54,	25	5	30	12	15	3	–	–	–	30
1854–55,	26	15	41	18	18	3	2	–	–	41
1855–56,	32	7	39	14	15	8	1	1	–	39
1856–57,	35	8	43	15	22	3	1	1	1	43
1857–58,	36	7	43	16	17	9	–	1	–	43
1858–59,	44	4	48	20	19	7	2	–	–	48
1859–60,	35	5	40	12	25	1	–	1	1	40
1860–61,	*59	1	60	13	33	12	2	–	–	60
1861–62,	†59	3	62	21	35	6	–	–	–	62
1862–63,	60	4	64	18	27	16	1	–	2	64
1863–64,	54	5	59	20	21	11	2	4	1	59
1864–65,	58	12	70	26	28	13	–	2	1	70
1865–66,	46	3	49	16	19	10	3	–	1	49
Total,	708	93	801	276	374	120	14	10	7	801

* Including three who had previously been in attendance as non-matriculated students.
† Including one who had previously been in attendance as a non-matriculated student.

II.—Numbers and Religious Persuasions of Students attending Lectures in the Queen's College, Galway, in each Session from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849–50, . .	64	4	68	24	38	6	–	–	–	68
1850–51, . .	60	3	63	22	28	13	–	–	–	63
1851–52, . .	68	5	73	25	41	7	–	–	–	73
1852–53, . .	73	2	75	26	40	9	–	–	–	75
1853–54, . .	76	5	81	30	42	9	–	–	–	81
1854–55, . .	69	16	85	32	46	5	2	–	–	85
1855–56, . .	78	9	87	26	42	14	3	2	–	87
1856–57, . .	88	8	96	30	49	10	3	3	1	96
1857–58, . .	92	8	100	31	47	16	3	2	1	100
1858–59, . .	113	9	122	37	64	15	4	1	1	122
1859–60, . .	111	7	118	31	69	11	2	2	3	118
1860–61, . .	141	3	144	33	85	19	3	2	2	144
1861–62, . .	148	5	153	39	91	19	3	1	–	153
1862–63, . .	161	4	165	33	95	32	2	–	3	165
1863–64, . .	160	5	165	41	91	25	3	4	1	165
1864–65, . .	157	12	169	50	78	31	2	6	2	169
1865–66, . .	139	5	144	33	71	29	4	4	3	144
Total, . .	1,798	110	1,908	543	1,017	270	34	27	17	1,908

In tables Nos. III. and IV. appear the number of students attending the several classes, and the number of lectures given by each Professor in each Session.

III.—Return showing the Number of Students attending the Lectures of each Professor, in each year since the opening of the College.

——	1849–50.	1850–1.	1851–2.	1852–3.	1853–4.	1854–5.	1855–6.	1856–7.	1857–8.	1858–9.	1859–60.	1860–1.	1861–2.	1862–3.	1863–4.	1864–5.
Greek, . . .	50	31	24	19	24	21	21	23	21	23	24	24	36	36	35	30
Latin, . . .	50	27	24	22	21	19	20	23	21	22	23	24	29	35	36	32
Mathematics, . .	54	38	28	28	27	28	25	34	34	42	35	42	48	52	41	43
English, &c., . .	47	43	28	23	23	22	22	27	20	31	22	29	24	38	39	30
Modern Languages, .	54	23	23	19	25	37	29	34	30	38	52	70	77	76	71	78
Celtic Languages, .	–	3	2	2	–	–	–	–	3	–	3	6	–	–	–	–
Natural Philosophy, .	8	11	23	19	27	23	21	27	29	38	33	70	57	67	62	68
Natural History, .	3	26	25	21	32	25	30	30	32	37	37	39	32	33	29	38
Logic and Metaphysics,	–	20	17	14	14	14	13	14	15	16	17	19	21	23	25	30
Chemistry, . . .	13	25	36	29	27	23	29	40	40	49	53	60	57	46	52	52
Mineralogy and Geology, . . .	–	4	14	15	10	14	10	8	15	16	17	–	6	10	5	6
Engineering, . .	2	10	11	13	10	11	9	10	15	18	12	21	18	21	17	16
Agriculture, . .	4	5	5	5	6	6	7	11	14	7	7	5	3	5	2	–
Anatomy and Physiology, . . .	10	9	8	15	18	13	22	35	39	47	52	71	68	65	56	54
Materia Medica and Medical Jurisprudence, . . .	–	5	9	11	10	7	8	17	13	24	20	26	34	28	32	23
Surgery, . . .	–	–	6	12	7	7	6	13	13	18	20	19	33	27	26	28
Midwifery, . .	–	–	4	7	4	–	4	3	11	5	11	12	14	17	12	14
Medicine, . . .	–	–	–	4	4	2	6	6	7	7	6	2	16	21	26	19
English Law, . .	4	4	5	6	6	7	5	4	3	7	7	4	7	7	7	8
Jurisprudence and Political Economy, .	4	4	12	13	16	10	9	9	7	17	13	10	5	9	8	8

IV.—Return of the Number of Lectures delivered by each Professor in each Session since the opening of the College.

——	1849-50.	1850-1.	1851-2.	1852-3.	1853-4.	1854-5.	1855-6.	1856-7.	1857-8.	1858-9.	1859-60	1860-1.	1861-2.	1862-3.	1863-4.	1864-5.
Greek,	265	254	216	224	248	249	217	262	223	246	210	229	*315	290	255	255
Latin,	270	252	212	238	233	190	217	244	195	189	189	196	181	263	228	237
Mathematics,	221	255	230	167	164	211	181	†186	†234	†233	†209	†210	†213	†199	†199	†213
English, &c.,	37	28	77	97	126	128	127	107	100	92	97	76	16	160	147	145
Modern Languages,	212	249	207	175	155	160	155	†162	†154	†151	†169	†246	†244	†229	†284	†256
Celtic Languages,	–	90	65	30	–	–	–	‡3	48	–	30	24	–	–	–	–
Natural Philosophy,	63	154	120	207	139	175	225	174	173	192	172	213	196	211	203	229
Natural History,	–	120	85	92	85	76	68	68	87	77	76	56	57	62	70	82
Logic and Metaphysics,	–	40	114	159	123	141	138	162	106	109	170	165	132	182	146	157
Chemistry,	32	111	128	140	113	123	97	101	107	98	100	95	91	95	89	87
Mineralogy and Geology,	–	51	45	57	51	50	45	49	60	64	64	§-	61	49	66	56
Engineering,	9	118	105	97	80	76	112	111	122	126	81	162	183	241	211	249
Agriculture,	–	106	112	160	144	160	192	174	123	154	182	83	65	54	28	–
Anatomy and Physiology,	111	112	111	108	100	115	104	103	102	104	‖116	‖96	‖90	‖84	‖105	‖118
Materia Medica and Medical Jurisprudence,	–	51	60	90	95	93	95	96	90	90	77	85	78	88	88	84
Surgery,	–	–	61	62	62	61	62	60	53	59	60	55	60	60	50	49
Midwifery,	–	–	59	70	62	–	62	61	60	59	54	51	60	51	54	51
Medicine,	–	–	–	64	62	61	62	60	60	58	62	55	49	50	50	49
English Law,	18	45	55	97	71	72	72	40	35	48	49	72	68	64	68	60
Jurisprudence and Political Economy,	20	48	60	96	106	95	60	52	51	97	49	61	60	67	83	70

It will be seen by a reference to tables I. and II., that up to the end of the Session 1864–65 a continued increase had taken place in the number of our students. In my last report I was able to bear the following testimony to the progress of the college under many difficulties, and to the determination of the people of this province to support an institution founded on the principle of united education, and free from all sectarian taint and bias:—

"Nothing perhaps can more clearly exhibit the peculiar difficulties with which this college has to contend, and the determination evinced by the people of the province to support it, than a comparison of the number of the population of the town of Galway with the number of students attending the college lectures at different periods since the opening of the college. It is needless to observe how much the wealth and population of the town and neighbourhood in which a college is situated must influence its growth and progress. In this respect the situation of the Galway College has been always peculiarly unfortunate as compared with that of almost any other similar institution in the empire, while the statistics of the last few years unfold a state of things which would appear to render any progress almost impossible. In the year 1851 the population of the town of Galway amounted to 23,787. In the same year the entrances into the college were 23, the number attending lectures, 63. In 1861 the population of the town had diminished to 16,786, while the college entrances had risen in that year to 60, and the number attending lectures to 144. Since that time the emigration, always increasing, has

* Exclusive of 72 lectures to extra classes.
† Exclusive of a Course of Lectures given by the Senior Scholar.
‡ These Lectures were open to the Public.
§ Owing to an alteration in the Ordinances of the University, no Lectures on Mineralogy and Geology were delivered this Session.
‖ Exclusive of Anatomical Demonstrations.

continued to thin the population of the town, which can hardly now exceed from 12,000 to 13,000 persons, and the number entering the college in the present year is 70, the number attending lectures, 169."

It thus appeared that while the population of the town of Galway had, since the year 1851, diminished almost to one-half, the number entering the college had trebled, and the number attending lectures had increased almost in the same proportion. I lament to say that in the Session in which I write (1865–66), a very different state of things prevails. The entrances, as compared with those of last Session, have diminished from 70 to 49; the attendances on lectures from 169 to 144.

Nor are these unsatisfactory results confined to this college alone. In Cork the entrances have diminished from 90 in the last to 77 in the present session: the attendances on lectures from 263 to 235. In Belfast, while a slight increase of 8 has taken place in the attendances, the entrances have diminished by 17. Thus, in the three colleges, the entrances have fallen in one year from 295 to 244; the attendances from 837 to 793. When it is remembered that the entrances had increased from 217 in Session 1859–60 to 295 in Session 1864–65, and that the average annual increase in the attendances on lectures, during the same period, had been 58, the significance of the above statistics will be more fully appreciated.

For a diminution so large and sudden, it is but too easy to find an adequate cause. The policy announced by the Government at the close of the last Session of Parliament will sufficiently account for changes so disheartening to those engaged in the working of these colleges, and to the friends of liberal and united education.

In the total absence of all sectarian influence from our university and colleges, was found the charm which allured so many students of all persuasions to Halls where, in the common pursuit of knowledge, they might forget their sectarian differences, and form a community at once harmonious and enlightened. To unite a people distracted and weakened by religious discord, was as important an aim in the establishment of the Queen's Colleges, as to elevate them by an education befitting the subjects of a free constitution. The success of the experiment has been as great as its object was beneficent.

In the period that elapsed from the first opening of the colleges in 1849 to the close of the Session 1864–65, 3,330 students entered the colleges and attended their lectures. Of these 3,330 students, 957 belonged to the Established Church, 938 to the Roman Catholic Church, 1,197 to the Presbyterian Church, 58 were Wesleyans, 18 Independents, and 162 of other persuasions. It is a fact as remarkable as gratifying that from the opening of the colleges not a single case of dissension on the score of religious opinion has ever occurred.

The unexpected announcement by the Government that a system thus adapted to the wants and wishes of the people was to be altered in what gave to it its efficacy and attraction—that the Queen's University granted to "complete the system of the Queen's Colleges, and to maintain united education," was to be divorced from the colleges and remodelled on sectarian prin-

ciples, to suit the views of the avowed enemies of united education; and the natural fear that a similar remodelling would be applied to the colleges, excited distrust and suspicion in the public mind, and while damping the zeal of the supporters of the colleges, gave to their enemies increased energy and courage.

It will be remembered that, since the foundation of the colleges, an opposition of the most formidable and unyielding character has endeavoured to impede their progress and utility. Within a few months after their opening, the Roman Catholic Deans of Residences—ministers of religion appointed with the sanction of their Bishops, to watch over the faith and morals of the students of their persuasion, and to give them religious instruction—were compelled, under the pain of instant suspension, to retire from their sacred offices. Since that time denunciations and invectives have pursued those parents who permitted their children to associate in the same class-rooms with their Protestant brethren, at that period of life when alone enduring friendships can be formed. Strong as were these measures, they yielded to those either threatened or adopted at the commencement of last year. The highest authority in the Roman Catholic Church in Ireland then declared that the sacraments of his Church ought to be withheld from every parent who might send his child to the Dublin University—a University in which so many eminent Roman Catholics have been educated, and to which they have ever referred with gratitude and love; and in the same sentence denounced the Queen's Colleges as far more pernicious than the Dublin University to the faith of their students. A few weeks after the Bishop of an adjacent diocese unhesitatingly proclaimed that thenceforward the sacraments should be refused to all who entered the Queen's Colleges. Such were some of the proceedings which declared the increased determination of their opponents to overturn these institutions, and to loosen by every means the firm hold they had taken of the affections of the laity. It was at a time like this, when a system assailed by such weapons seemed to demand fresh aid from all who professed to support it, that the public was astonished by the announcement that the Queen's University was to be in effect detached from the colleges, and to be reconstructed to meet the views of its opponents. Little wonder is it that these opponents were encouraged to renewed opposition to the colleges by the hope of thus obtaining fresh powers to destroy them, and that the large and important portion of the community which had supported these institutions on the ground of their total freedom from all sectarian influence was alienated by the strange intelligence that sectarianism was thenceforward to constitute a large and recognized feature of the system.

Nor can it be doubted that, in addition to the causes just mentioned, the proposed plan of opening the degrees of the Queen's University to persons who have not been in attendance at any of the Queen's Colleges, and who have not received any regular academic training, has operated to prevent students from entering the Colleges during the current session, by holding out to them the not-distant prospect of obtaining University degrees

on the easy terms of passing an examination. This result was clearly anticipated by all who had experience in the working of the Queen's Colleges, and of the peculiar difficulties to which they are exposed, and which they have hitherto been gradually and steadily surmounting.

And here I may perhaps be permitted to place upon record my deliberate and decided conviction—a conviction to which some weight may be attached as I am supported in it by the expressed opinion of nearly every member of the college to which I belong, as well as by the great majority of the members of the sister colleges—that should the contemplated changes in the system of the Queen's University be carried into effect, they will prove in the highest degree detrimental not only to the colleges founded by your Majesty, with the approval of the most sagacious statesmen of all political parties, but also to the general interests of education in Ireland, and to the development of those sentiments of loyalty, patriotism, and toleration which, I rejoice to know, the Queen's Colleges have been largely instrumental in fostering and diffusing throughout the community.

The Queen's University was not founded with the object of affording facilities for the multiplication of degrees, but with the view of completing and accrediting the education supplied in the colleges; and the friends of united education who have participated in its struggles and witnessed its success, cannot but deplore changes which, under the guise of extending the sphere of the University, are in reality a departure from its original principle and design.

The aim of education is not merely to communicate knowledge; its essential function consists in forming intellectual habits, and imparting that general culture of mind and manners which the discipline of the class-room and constant personal intercourse with teachers and fellow-students are so well fitted to develop; and of which no system of examinations, be it ever so well devised, can be a sufficient guarantee.

This principle has hitherto been fully recognised by the Queen's University. Attendance on lectures has been rigidly enforced by that body as the leading and most excellent part of her system. Any attempt, under circumstances however peculiar, to modify the rigour of the rule enforcing this attendance, has been resisted, as tending to degrade the character of her degrees, and as interfering with the best interests of education. The same principle is embodied in the Report of the Commission appointed by your Majesty to inquire into the condition of the Queen's Colleges. The distinguished men who, at your Majesty's command, have reported on the condition of the Dublin University, enforce, with all the weight of their authority, the utility of attending the college lectures. In that University a succession of severe examinations, to which every student, from matriculation to graduation—a period of four years—is submitted, would seem, if any system of examinations could, to remove the necessity of attendance. Nevertheless, the Commissioners, while recognising the excellence of the examinations, the continued

efforts of the college authorities to encourage residence, and the large increase that had taken place in the numbers attending lectures, adopt and enforce the opinion of Dr. Lloyd—an eminent authority in all academic matters—that "one of the most urgent of all academic reforms would be to give more direct encouragement to attendance on lectures." It is well known that these recommendations of the Commissioners have not been given in vain. Strange that while the Dublin University is encouraging in every way attendance on lectures, the Queen's University is called upon to declare such attendance useless; and, stranger still, that while a University founded in a great degree for the education of the clergy of the Established Church, is ridding herself of every dispensable sectarian feature, the Queen's University, founded for the education of the laity—a laity hitherto cursed by sectarian dissensions—should be urged to adopt sectarianism as a necessary element of her system and constitution.

To these three causes then, the fresh stimulus given by the Government proposal to the enemies of the colleges, the alienation caused in the public mind by the announced sectarianising of the Queen's University, and the belief that degrees would soon be obtained without the necessity of attending the colleges—to these causes, I feel assured, may be attributed that change in the progress of the colleges to which I have referred above.

Let us hope that the surprise and dismay with which these contemplated measures have been received by the friends of liberal education, both in and out of Parliament, will lead to their reconsideration; and that any Government which may be in power will hesitate before they abandon a system which has received such support from all classes and persuasions, and which statesmen of every party have regarded and supported as the last hope of Ireland.

I am happy to state that since my last report, two students of this college have been successful at the first examination for the India Civil Service. Another has obtained a Ceylon Writership, and two others appointments in the Indian Public Works Department. One of our students has also obtained in public competition the important office of Inspector of National Schools. These and several minor appointments won by students of the college, attest the value of the education afforded in its lecture-rooms.

In the Appendix I submit a detailed account of the courses of instruction and examination in the several departments, together with a selection from the questions set at the Scholarship and other examinations.

EDWARD BERWICK,
President.

QUEEN'S COLLEGE,
June, 1866.

APPENDIX.

APPENDIX, No. 1.

QUEEN'S COLLEGE, GALWAY.

1866-7.

DAYS AND HOURS OF MATRICULATION AND SCHOLARSHIP EXAMINATIONS.

OCTOBER, 1866.

DAYS.	HOURS.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.
Tuesday, 16th Oct.	9—5		Supplementary Examinations.	Supplementary Examinations.
Wednesday, 17th Oct.	9—5		Supplementary Examinations.	Supplementary Examinations.
Thursday, 18th Oct.	9–12		Lit. Schol.—Latin. Med. } Schol.—Chem. Engin. }	
	2—5		Lit. Schol.—Greek. Med. } Schol.—Chem. Engin. }	
Friday, 19th Oct.	9–12	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
	2—5	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
Saturday, 20th Oct.	9–12		Lit. Schol.—Latin. Med. Schol.—Nat. Hist.	
	2—5		Lit. Schol.—Greek. Med. Schol.—Nat. Hist.	
Monday, 22nd Oct.	9-1	Lit. Med. } Schol.—English. Lic. in Arts Ex.	Med. Lit. } Schol.—Mod. Lang.	Engin. Schol.—Engin.
	2—5	Lit. Med. } Schol.—Greek.		Engin. Schol.—Engin.
Tuesday, 23rd Oct.	9–12	Lit. Med. } Schol.—Latin.	Med. Schol.—Anat.	Engin. Schol.—Min. & Geol.
	2—5	Lit. Med. } Schol.—Greek.	Med. Schol.—Anat.	
Wednesday, 24th Oct.	9–12	Lit. Med. } Schol.—Latin.	Med. Schol.—Nat. Phil.	Engin. Schol.—Nat. Phil.
	2—5	Science Med. Engin. } Schol.—Math. Lic. in Arts Ex.	Science Engin. } Schol.—Math.	Engin. Schol.—Nat. Phil.
Thursday, 25th Oct.	9–12	Science Med. Engin. } Schol.—Math.	Science Engin. } Schol. Math.	Engin. Schol.—Math.
	2—5			Engin. Schol.—Math.

The Examination for the Third and Fourth Year Scholarships in MEDICINE will commence on Monday, the 29th October. Arrangements will be made for holding the Examinations for Law Scholarships early in December.

Appendix, No. 1.

QUEEN'S COLLEGE, GALWAY.—Founded December 30, 1845.

This College is a Corporation, founded by Letters Patent under the Great Seal of Ireland, under the name and style of the "President and Professors of Queen's College, Galway."

The general government and administration of the College under the Statutes, and in cases not provided for by the Statutes, is vested in a Council consisting of the President, and six Professors elected by the Corporate Body.

Visitors.

His Grace the Lord Primate.
His Grace the Duke of Leinster.
The Right Honourable the Earl of Fingall, K.P.
The Right Honourable the Chief Secretary for Ireland.
The Right Honourable Lord Chancellor Brady.
The Right Reverend the Lord Bishop of Tuam.
The Most Reverend Archbishop M'Hale.
The Moderator of the General Assembly.
The President of the College of Physicians.
The President of the Royal College of Surgeons.

President.

Edward Berwick, B.A.

Council.—1865–66.

The President.
Richard B. Bagley, M.A.
George J. Allman, LL.D.
Thomas W. Moffett, LL.D.
Augustus Bensbach, M.D.
James V. Browne, M.D.
Richard Doherty, M.D.

Professors.

Greek,	Darcy W. Thompson, M.A.
Latin,	Richard Blair Bagley, M.A.
Mathematics,	George Johnston Allman, LL.D.
Natural Philosophy,	Arthur H. Curtis, LL.D.
History, English Literature, and Mental Science,	Thomas W. Moffett, LL.D.
Chemistry,	Thomas H. Rowney, PH.D.
Natural History,	Alexander G. Melville, M.D. Edin., M.R.C.S. Eng.
Mineralogy and Geology,	Wm. King, Cor. Mem. Nat. Hist. and Med. Soc. Dresden, &c.
Modern Languages,	Augustus Bensbach, M.D.
Jurisprud. and Polit. Econ.	John E. Cairnes, M.A.
English Law,	William B. Campion, B.A.
Anatomy and Physiology,	John Cleland, M.D.
Practice of Medicine,	Nicholas Colahan, M.D., F.R.S., Edin.
Practice of Surgery,	James V. Browne, M.D., L.R.C.S.I.
Materia Medica,	Simon M'Coy, F.R.C.S.I.
Midwifery,	Richard Doherty, M.D., Hon. V.P., Obstet. Soc. Dub.
Medical Jurisprudence,	
Civil Engineering,	Edward Townsend, M.A.

Office-Bearers.

William Lupton, M.A.,	Registrar.
George J. Allman, LL.D.,	Bursar.
John H. Richardson, B.A.,	Librarian.

Appendix, No. 1.

Deans of Residence.

United Church of England and Ireland,	Rev. J. Treanor, B.A.
General Assembly of the Presbyterian Church in Ireland,	Rev. William Adair.
Wesleyan Methodist Church,	Rev. John Duncan.
Independent Church,	Rev. John Lewis.

The College Session.

The College Session is divided into three Terms.

The First Term of the Session 1865–6 commences on Tuesday, October 17, and ends on Friday, December 21, 1865.

The Second Term commences on Friday, January 5, and ends on Saturday, March 24, 1866.

The Third Term commences on Monday, April 9, and ends on Saturday, June 9, 1866.

The First Term of the Session 1866–7 commences on Tuesday, October 16, and ends on December 22, 1866.

Students.

Students are either Matriculated or Non-Matriculated.

Matriculated Students are required to pass an entrance or Matriculation Examination, and to pursue fixed courses of study.

Non-Matriculated are permitted to attend the Lectures of any of the Professors, without being required to pass the Matriculation or any other Examination.*

Matriculation.

Candidates for Degrees or Diplomas in the Queen's University, or for Scholarships, Exhibitions, or Prizes, in Queen's College, Galway, are required to pass a Matriculation Examination.

Students are admitted by examination to Matriculation in the Faculties of Arts, Law, and Medicine, and in the School of Engineering. In each Faculty and School special courses are prescribed for examination.†

The Matriculation Examination is held at the commencement of the first Term of each Session; but additional Matriculation Examinations are held before the close of the Term.

The last Matriculation Examination for Students in the Faculty of Medicine is held on the 16th of November.

Candidates for Matriculation are required to appear in the Registrar's office before the Matriculation Examination for the purpose of entering their names on the College books.

Each candidate, before being admitted to the Matriculation Examination, is required to pay to the Bursar the Matriculation and College fee of ten shillings. This fee will be returned to such students as may fail to pass the Examination.

Attendance on Lectures.

Attendance upon Lectures is strictly prescribed to all Matriculated Students.

All Students shall pay the College Fee, and a moiety of their Class Fees, to the Bursar, and enter their names with the Registrar, before they are admitted to the classes of the several Professors.

The Registrar shall furnish to the Professors, before the commencement of Lectures in each Term, the rolls of their several classes, and from time to time such names as shall be afterwards entered with him.

* For further particulars of the status and privileges of Non-Matriculated Students, *vide* p. 14.

† *Vide* pp. 17, 24, 26, 34.

No Student shall have his name replaced on the rolls of the Professors at the commencement of the second Term who has not paid the second moiety of his Class Fees. *Appendix, No. 1.*

Attendance on Lectures includes preparation for Lectures; and it is competent for a Professor who, on any occasion, is not satisfied with the preparation of a Student, to refuse him credit for attendance.

No Student shall be regarded as having kept a Course of Lectures who has not attended at least two-thirds of the entire number of Lectures delivered.

Attendance upon Courses of Lectures in the Faculty of Arts is recognised in cases where Students pass to a different Faculty or School.

In case of absence arising from illness or other unavoidable cause, the Student is required to lodge with the Registrar, immediately on recommencing his attendance, a letter or certificate explaining his absence, to be laid before the Council.

Examinations.

A General Sessional Examination is held at the close of each Session in the subjects upon which Lectures have been delivered during the Session. There is also a Supplementary Examination on the same subjects at the commencement of the following Session.

Every Matriculated Student in the Faculties of Arts and Law, and in the Schools of Engineering and Agriculture, must pass either the General Examination or the Supplementary Examination before his name can be entered on the College Register as having completed the Session; and no Student in these Faculties and Schools can be permitted to enter upon the Course of the succeeding year until he has so completed the previous Session.

No Student is admitted to the Sessional or the Supplementary Examination who has not kept the Courses of Lectures prescribed to Students of his class and standing.*

Scholarships.

Forty-six Junior and eight Senior Scholarships have been founded in the College.

Of the Junior Scholarships†—

Thirty, of the value of £24 each, are appropriated to Students pursuing the Course prescribed for the Degree of B.A.

Three, of the value of £20 each, to Students pursuing the Course for the Diploma of Elementary Law and the Degree of LL.B.

Eight, of the value of £25 each, to Students pursuing the Course for the Degree of M.D.

Five, of the value of £20 each, to Students pursuing the Course for the Diploma of Civil Engineering.

The Examinations for Junior Scholarships are held at the commencement of the First Term of the Session.

No Student is allowed to become a Candidate for a Junior Scholarship until he has paid the College Fee and one-half of the Class Fees for the current Session.

No Student is permitted to present himself as a Candidate for a Senior Scholarship who has not entered his name with the Registrar, and paid the College Fee to the Bursar.

All Senior Scholars in Arts are required to be in attendance in the College during their period of office.

* For University Examinations, see the "University Regulations."

† For the distribution of these Scholarships, the subjects of Examination, and the conditions upon which they are held, *vide* pp. 19, 25, 31, 36.

Appendix, No. 1.

Junior Scholars are exempted from the payment of one moiety of the Class Fees for the courses prescribed to Students of their faculty and standing.

No Student can hold the same Scholarship a second time.

No Scholarship will in any case be awarded, unless the Candidates are, in the opinion of the Examiners, sufficiently qualified in the prescribed courses.

Exhibitions.

The College is empowered to award Exhibitions, varying in value from £10 to £18, at the same Examinations as the Scholarships, and to be held upon the same terms.

Exhibitioners are required to pay the whole amount of the Class Fees for the Session.

No Student is allowed to compete for a Junior Scholarship or Exhibition in any course substantially the same as that in which he has already held a Scholarship or Exhibition.

No Student who has been awarded an Exhibition or Prize for answering in any of the courses for Senior Scholarships can a second time obtain an Exhibition or Prize for answering in the same course; but such Exhibitioners and Prizemen are not precluded from competing for Senior Scholarships.

All Junior Scholars and Exhibitioners are required to attend lectures, and pass the Sessional Examinations during their year of office.

Prizes.

The College is empowered to award Prizes, by examination, at the close of the Session, to the most distinguished answerers in the several courses of study pursued during the Session.

Two prizes for English prose composition, and two prizes for Geometry,* have been founded in the College, to be awarded annually at entrance:—first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All Candidates for Scholarships, Exhibitions, or Prizes, must have passed the Matriculation Examination in the Faculty or School to which the Scholarships, Exhibitions, or Prizes are attached.

Non-Matriculated Students.

Non-Matriculated Students are those who are permitted to attend the Lectures of any of the Professors without being required to pass the Matriculation or any other examination. They are required to pay to the Bursar the regulated Fees for the Classes proposed to be attended, and to sign an engagement to observe order and discipline in the College. They are not entitled to compete for Scholarships or other Collegiate distinctions.

During the term of their attendance on College Lectures they are admitted to read in the Library; and, on payment of a deposit of £1, are permitted to take out two volumes on loan, under the same regulations as Matriculated Students.

Every Non-Matriculated Student must pay to the Bursar one-half of his Class Fees before his name can be entered on the rolls of the several Classes, and the remainder at the commencement of the second Term.

* Candidates are recommended to read M'Dowell's Exercises on Euclid and in Modern Geometry (Cambridge: Deighton, Bell, and Co., 1863), from beginning to page 150.

STUDENTS OF OTHER UNIVERSITIES.

Any Student who shall have pursued part of his Collegiate Studies in any one of the Queen's Colleges, or in any University capable of granting Degrees in the several Faculties of Arts, Law, and Medicine, and any Legal or Medical Student who shall have pursued part of his Legal or Medical Studies under teachers recognised by the Senate of the Queen's University, on passing such Examinations, and fulfilling such other conditions as the Council shall prescribe, may take corresponding rank in this College; and also may compete for Scholarships or other Prizes of the corresponding year, provided he shall not hold at the same time a Scholarship or other office of emolument in any other University, College, or Medical School.

FEES.

The College Fees payable by Matriculated Students are 10*s.* at the commencement of the first year, and 5*s.* at the commencement of each subsequent year.

The Fees payable by Students, whether Matriculated or Non-Matriculated, to the several Professors for attendance on the several Pass Courses of Lectures or instruction, are £1 for each Course extending over one Term only, and £2 for each Course extending over more than one Term of a Session, when attended for the first time, and £1 for each re-attendance on the same.

This rule applies in all cases except the following:—

The Fee payable for the Course of Anatomy and Physiology is £3, when attended for the first time, and £2 for every subsequent attendance; and the Fee payable for Practical Anatomy or Practical Chemistry is £3 for each attendance.

The Fees payable for attendance upon Honor Courses of Lectures and upon Courses of Special Instruction not prescribed as a qualification for a Degree or other University distinction, are £2 for each Course, whether attended for the first time or re-attended.

This rule does not apply to special instruction in Practical Chemistry and in Operative Surgery. In the former case, the Fee is regulated by the time spent in the laboratory, at the rate of £1 a month. The Fee for Operative Surgery is £3.

Matriculated Students who attend voluntary Courses are, so far as these Courses are concerned, regarded as Non-Matriculated.

TABLE showing in each case the *minimum* amount of Fees payable by Students to the College and for attendance on the several prescribed Courses of Lectures and Instruction.

	First Session.	Second Session.	Third Session.
	£ *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*
For the Degree of B.A.,	9 10 0	7 5 0	8 5 0
If a Scholar,	5 0 0	3 15 0	4 5 0
For the Degree of M.D.,	—	—	—
If a Scholar,*	—	—	—
For the Diploma of Elementary Law,	4 10 0	4 5 0	2 5 0
If a Scholar in Law,	2 10 0	2 5 0	1 5 0
For the Degrees of LL.B. and LL.D.	13 10 0	11 5 0	10 5 0
If a Scholar in Arts,	9 0 0	7 15 0	6 5 0
If a Scholar in Law,	11 10 0	9 5 0	5 5 0
For the Diploma of Civil Engineering,	10 10 0	12 5 0	6 5 0
If a Scholar,	5 10 0	6 5 0	3 5 0

* The Fees for the Degree of M.D. vary according to the course of study pursued.

Appendix, No. 1.

In all cases the Fees are payable in two instalments. The first instalment includes the College Fee—which is 10*s.* for the first year, and 5*s.* for every subsequent year—and a moiety of the Class Fees payable to the several Professors whose lectures are prescribed in the curriculum. This first instalment is payable at the commencement of the First Term in which the Student enters. The second instalment—consisting of the remaining moiety of the Class Fees—is payable at the commencement of the Second Term. Scholars are exempted from the payment of this latter moiety.

Residences.

It is provided by the Statutes that every Matriculated Student under the age of twenty-one years shall reside, during the College Terms, with his parent or guardian, or with some relation or friend to whose care he shall have been committed by his parent or guardian, or in a Boarding-house, licensed by the President of the College, and arranged for the reception of Students, where he shall be placed under the moral care and spiritual charge of the Dean of Residences of his creed.

Discipline.

All Matriculated Students are required to wear a cap and gown.

A penalty of sixpence shall be imposed on any Student who shall appear within the quadrangle without his cap and gown.

The Porter at the lodge is instructed to report to the Bursar the name of any Matriculated Student who shall appear within the quadrangle without his cap and gown, and also to intimate to the Student at the time that he will be reported.

Any Student so reported shall pay the fine to the Bursar within one week, without receiving further notice, and the fine shall be doubled every week that the fine remains unpaid.

A Professor may inflict a fine not exceeding 2*s.* 6*d.* on any Student for any breach of discipline in his class which he does not consider of sufficient importance to bring under the notice of the Council.

Members of the Library Committee may inflict a fine not exceeding 2*s.* 6*d.* on any Student, for any breach of discipline in the Library, which they do not consider of sufficient importance to bring under the notice of the Council.

Library Regulations.

The Library is open from the commencement of the Session to the 1st of March, between the hours of 10 A.M. and 4 P.M., and from the 1st of March to the 1st of July, between the hours of 10 A.M. and 5 P.M., except (1) on College holidays; (2) for a period of five days in the Christmas and Easter recesses respectively.

The Library is closed during the month of July, except for one hour each week, when the Librarian attends to issue books. From the 1st of August to the commencement of the College Session the Library is open between the hours of 11 A.M. and 3 P.M.

No Student is admitted to the Library without subscribing the following declaration:—

We the undersigned do hereby promise to the President and Council of the Queen's College, Galway, that we will not mark, turn down the leaves of, or write on paper placed upon, or in any way whatsoever soil, deface, injure, or remove, without permission, any book or document in the Library of said College. We also promise that we will not injure the Library furniture; that we will faithfully observe all the rules made for the regulation of the Library, and that we will acquaint the College Authorities with any serious instance of violation of the above rules which may come under our notice.

Appendix No. 1.

No Student can borrow books from the Library until he has deposited the sum of £1 with the Bursar.

No Student can have more than two volumes on loan from the Library at the same time.

No Student can retain a volume borrowed from the Library more than one week; but the borrower, on returning the book, may renew the loan, if the book has not been in the meantime applied for.

Any Student, on receiving at any time a notice from the Librarian, must return, within twenty-four hours, the books belonging to the Library in his possession.

Any person losing or injuring a book belonging to the Library must replace it by another copy of the same edition and of equal value, or pay such a sum of money as will enable the College to replace it.

FACULTY OF ARTS.

The Degrees of B.A. and M.A.

1.—*The Degree of Bachelor in Arts.*

Candidates for the Degree of B.A. in the Queen's University, must on entering Queen's College, Galway, pass the following Matriculation Examination.

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

THE GREEK LANGUAGE.

Any one of the following authors which the Candidate may select:—

Homer—Iliad, Books I.–IV.
Xenophon—Anabasis, Books I.–III.
Lucian—Walker's Selections.

THE LATIN LANGUAGE.

Any one of the following authors which the Candidate may select:—

Virgil—Æneid, Books I.–V.
Horace—Odes, Book I.; Satires, Book I.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Cæsar—Gallic War, Books V., VI.
Re-translation from English into Latin of portions of Cæsar.

HISTORY AND THE ENGLISH LANGUAGE.

History, Grecian and Roman, Outlines of.
Geography, Ancient and Modern, Outlines of.*
Grammar, English Grammar, and Composition.

Students are admitted to the University Examination for this Degree who, after having passed the Matriculation Examination, have attended the College Lectures for at least two full terms in each Session, have passed the prescribed College Examinations, and are recommended for promotion to the Degree by the President of the College.

* Rev. T. K. Arnold's Handbooks are recommended.

Appendix, No. 1.

The Session extends from the third Tuesday in October to the second Saturday in the following June, with short recesses at Christmas and Easter. Each Session consists of three Terms.

The studies for the Degree of Bachelor in Arts extend over three Sessions, and comprise attendance on the following Curriculum:—

FIRST SESSION.

English (One Term).
Greek.
Latin.
A Modern Continental Language.
Mathematics.

SECOND SESSION.

Logic (One Term).
Natural Philosophy.

Along with any two of the following:—

Greek (Second Course).
Latin (Second Course).
A Modern Continental Language (Second Course).
Mathematics (Second Course).

THIRD SESSION.

English Language and Literature.
Metaphysics, or History, or Political Economy (Two Terms).
Chemistry.
Zoology, or Botany.

Attendance on these Courses includes passing such Examinations as may be appointed by the College Council, and the catechetical parts of the Courses of Lectures.

In each College there is a General Examination in the subjects upon which lectures have been delivered during the Session. There is also a Supplementary Examination in the same subjects, at the commencement of the following Session. All Students must pass either the General Examination or the Supplementary Examination, before they proceed with the course of the succeeding year.

Candidates for the Degree of Bachelor in Arts must reside at their respective Colleges during at least the first two Terms of each Session, but may be exempted from residence during the third Term by a special grace of the College Council.

Third year's Students may substitute attendance on one or on two Courses of Honor Lectures, for attendance upon a like number of the Courses above set down for study in the Third Session.

Candidates for the Degree of Bachelor in Arts are required to pass two University Examinations—the Previous Examination held simultaneously in each of the Colleges of the University, and the Degree Examination held in the Hall of the University in Dublin.

Students who have completed their second Session must pass the Previous Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

For the regulations as to the First University Examination in Arts, and the Examination for the Degrees of B.A. and M.A., see the "University Regulations."

For the Exhibitions awarded at the First University Examination in Arts, see p. 39.

DAYS AND HOURS OF LECTURES. *Appendix, No. 1.*

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	10	.	10	10	.	.
	German,	1, 2, 3,	.	2	.	2	.	.
	Latin (pass),	1, 2, 3,	12	.	12	.	12	.
	Greek (pass),	1, 2, 3,	.	11	.	12	.	12
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	English,	2	11	.	11	.	11	.
	Latin (honor),	1, 2, 3,	.	11	.	11	.	11
	Greek (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
2nd Year	French,	1, 2, 3,	3	.	3	.	.	.
	German,	1, 2, 3,	2	.	.	.	3	.
	Greek,	1, 2, 3,	.	10	.	11	.	.
	Latin,	1, 2, 3,	11	.	11	.	10	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
	Natural Philosophy (pass),	1, 2, 3,	12	.	12	.	.	.
	Logic,	2,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Natural Philosophy (honor),	1, 2, 3,	.	2	.	2	.	.
3rd Year	Zoology or Botany,	1, 2, 3,	.	11	.	11	11	11
	Chemistry,	1, 2, 3,	12	.	12	.	12	12
	English Language and Literature,	1, 2,	3	.	3	.	3	.
	Metaphysics,	1, 2,	.	1	.	1	.	1
	History,	1, 2,	2	.	2	.	2	.

JUNIOR SCHOLARSHIPS IN ARTS.

Of the Thirty Junior Scholarships appropriated to Students in the Faculty of Arts :—

Ten are tenable by Students of the First Year.
Ten " " Second Year.
Ten " " Third Year.

Of the ten Junior Scholarships in Arts tenable by Students of each year, five are awarded for proficiency in literary studies, and five for proficiency in scientific studies ; but it is competent for the Council, in case Scholarships in either department are withheld on the ground of insufficient answering, to assign the unawarded Scholarships to the other department.

The Examination for Junior Scholarships in Arts of the first year takes place immediately after the first Matriculation Examination of the Session, and is open to all Students of the first year, who have passed that Examination, and have paid the regulated fees. Those candidates to whom Scholarships are then awarded hold their Scholarships for one year.

There is a further Examination, at the commencement of the second year, which is open to all Matriculated Students in Arts of that year who have passed the Examination and attended the lectures prescribed to Students of the first year, and who have paid the regulated fees.

Those Candidates to whom Scholarships are awarded at this further Examination, hold their Scholarships for two years, provided (1) they answer sufficiently in two Honor Courses at the Sessional Examination of the second year ; (2) they pass the First Examination for the Degree of B.A.

If any Student be placed, at the Examinations for Junior Scholarships in Arts, first on both the lists of candidates, he is entitled to a Scholarship of each division ; but in no other case can two Scholarships be held by the same Student.

Appendix, No. 1.

SCHOLARSHIP EXAMINATIONS.—SESSION 1865-66.

Literary Scholarships, First Year.

THE GREEK LANGUAGE.

Homer—Iliad, Books I.–VI.
Euripides—The Ion.
Xenophon—The Anabasis, Books I.–III.
Lucian—Walker's Selections.

THE LATIN LANGUAGE.

Virgil—The Æneid, Books I.–VI.
Horace—The Odes, Books I., II.; the Satires; the Epistles.
Cicero—Pro Lege Manilia.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Livy—Books I.–III.

COMPOSITION.

In Greek, Latin, and English Prose.*

HISTORY AND GEOGRAPHY.

Grecian History, to the Death of Alexander.†
Roman History, to the Accession of Augustus.‡
Outlines of Ancient and Modern Geography.§

Science Scholarships, First Year.

MATHEMATICS.

Arithmetic :—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra :—

Including the Solution of Simple and Quadratic Equations; Arithmetical and Geometrical Progressions; Permutations and Combinations; the Binomial Theorem; the nature of Logarithms.

Geometry :—

Euclid, Books I., II., III., IV., and VI., with definitions of Book V.

Plane Trigonometry :—

So far as to include the Solution of Triangles.

The use of Logarithmic and Trigonometrical Tables.

Literary Scholarships, Second Year.

THE GREEK LANGUAGE.

Homer—Books VI.–XII.
Plato—The Apology and the Crito.
Xenophon—Hellenica, I.–IV.
Æschylus—Prometheus Vinctus.

Candidates will be examined in Dr. Smith's History of Greece, and in Curtius' larger Greek Grammar, edited by Dr. Smith.

The following books are recommended:—Merivale's Fall of the Roman Republic; Abeken's Life and Letters of Cicero; Mommsen's Roman History, Vol. I.; and Ramsay's Roman Antiquities, fourth edition.

THE LATIN LANGUAGE.

Cicero—Tusculan Disputations.
Cicero—Letters to Atticus, Books III.–V.
Tacitus—Annals, Book I.
Terence—Andria.
Virgil—Georgics.

THE ENGLISH LANGUAGE.

The Comparative Study of Languages, as treated in Wiseman's Lectures on the connexion between Science and Revealed Religion, Lectures I., II. The History and Structure of the English Language, as treated in Craik's Manual of the English Language and Literature to Chaucer (inclusive).

Shakespeare—Macbeth.

* Rev. T. K. Arnold's Introductory Works on Greek and Latin Prose Composition are recommended.

† Dr. William Smith's History of Greece is recommended.

‡ Liddell's Roman History is recommended.

§ Dr. William Smith's Handbook of Ancient Geography is recommended.

MODERN LANGUAGES.

French :—

Racine—Athalie, Andromaque, Acts I. and II.
Mignet—Révolution Française, Chap. VI. to end of the work.
An Extract from any other French Author.
French Grammar.
Outlines of French Literature.

Or,

German :—

Schiller—Wilhelm Tell, Acts I. and II., and Minor Poems.
German Grammar.
Outlines of German Literature.

HISTORY AND GEOGRAPHY.

As in the First Year.

COMPOSITION.

In Latin Verse, and in Greek, Latin, English, and French or German Prose.

SCIENCE SCHOLARSHIPS, SECOND YEAR.

MATHEMATICS.

The Course appointed for Science Scholarships of the first year.

Algebra :—

Nature and Simple Transformations of Equations; the Solution of Cubic and Biquadratic Equations; Method of Indeterminate Coefficients.

Geometry :—

Elements of Solid Geometry.

Trigonometry :—

Plane and Spherical.

Analytic Geometry :—

Discussion of the Equations of the Right Line and Circle.

The Professor's Lectures to the Class of the First Year.

SENIOR SCHOLARSHIPS.

The College is empowered to award Seven Scholarships, of the value of forty pounds each, by examination, to the most distinguished Students who shall have proceeded to the Degree of B.A., for proficiency in special departments of study. Of these Scholarships one is awarded for proficiency in each of the following departments :—

1. The Greek and Latin Languages, and Ancient History.
2. The Modern Languages, and Modern History.
3. Mathematics.
4. Natural Philosophy.
5. Metaphysical and Economic Science.
6. Chemistry.
7. Natural History.

I.—GREEK AND LATIN LANGUAGES, AND ANCIENT HISTORY.

The Greek Language :—

Thucydides—Book VI.
Plato—Theætetus.
Demosthenes—De Coronâ.
Pindar—Pythian Odes.
Aristophanes—The Clouds.
Odyssey, last 12 Books.
Translations from unprepared Greek.

The Latin Language :—

Cicero—De Finibus.
Tacitus—Annals, Books XII.–XVI.
Plautus—Pseudolus.
Juvenal and Persius.
Translations from unprepared Latin.
Composition in Greek and Latin Prose.

Ancient History :—

Grote's History of Greece, Chaps. LV.–LXVIII.
Mommsen's Roman History.
Mure's History of the Language and Literature of Greece.
Müller's History of Grecian Literature, continued by Donaldson, to the end of chap. xlii.

Appendix, No. 1.

II.—MODERN LANGUAGES AND MODERN HISTORY.

The English Language :—

Prof. Max Müller's Lectures on the Science of Language (First Series).
Johnson's Preface to Shakespeare.
Chaucer—Prologue of the Canterbury Tales.
Spenser—Fairy Queen, Book I.
Milton—Comus, L'Allegro and Il Penseroso.

The French Language:—

La Bruyère—Les Caractères.
Molière—Le Misanthrope.
Montesquieu—Grandeur et Décadence des Romains.
Corneille—Le Cid.
Extracts from writers of the present century.
History of French Literature.
French Composition.

The German Language :—

Schiller—Die Braut von Messina.
Lessing—Hamburgische Dramaturgie, from the beginning to 21st Stück; Laokoon.
Extracts from writers of the present century.
History of German Literature.
German Composition.

Modern History :—

Hallam's Middle Ages, Chaps. I. and II. (last edition, with the notes).
Lingard—History of England, from the Norman Conquest to the close of the reign of Henry VII.

III.—MATHEMATICS.

The Mathematical Course appointed for the Science Scholarship of the second year; theory of Algebraical Equations, including their numerical solution; Analytic Geometry of two and of three dimensions; Differential and Integral Calculus, including its application to Geometry.

IV.—NATURAL PHILOSOPHY.

Todhunter's Statics.
Tait and Steele's Dynamics, and Routh's Dynamics of a Rigid body.
Walton's Hydrostatical Problems.
Parkinson's Optics.
Hymer's Astronomy.
Jamin's Traité de Physique.
Lloyd's Lectures on the Wave Theory of Light.
The Professor's Lectures to the Honor Class of the Third Year.

V.—METAPHYSICAL AND ECONOMIC SCIENCE.

Metaphysics :—

Descartes—Discours de la Méthode, and Meditationes de Primâ Philosophiâ.
Locke and Kant—Philosophical Systems of.
Sir William Hamilton—Lectures on Metaphysics, Vol. II.
Archer Butler—Lectures on Aristotle.
Mansel—Prolegomena Logica.

Jurisprudence :—

Jurisprudence as treated in the Professor's Lectures.
Austin's Province of Jurisprudence, Lectures I., II., V., and VI., and Appendix.
Dumont's Bentham—Principes de Législation.
Stephens' (James Fitzjames) Criminal Law of England, omitting chap. VII., so far as p. 265, and from p. 338 to end.
Sandars' Institutes of Justinian, Introduction, and Books I. and II.
Maine's Ancient Law.

Political Economy :—

Political Economy, as treated in the Professor's Lectures.
Mill's Principles of Political Economy.
Smith's Wealth of Nations (omitting from the digression concerning the value of Silver, Book I., chap. xi., part 3, to the end of Book I., Book III., and chaps. iv.–ix. of Book IV.)

Political Economy—*continued.*

Ricardo's Political Economy, chapters VII. to XVI.
Senior's Political Economy.
Cairnes' Logical Method of Political Economy.
Göschen's Foreign Exchanges.

VI.—CHEMISTRY.

Theoretical Chemistry:—

The works of Graham, Kane, Miller, Gregory, and Regnault.
Liebig's Chemical Letters (third edition).
Ronalds and Richardson's edition of Knapp's Chemical Technology.

Practical Chemistry:—

Analysis, and an acquaintance with Manipulation to the extent to which it is carried out in the *Practical Course* prescribed for Medical Students will be considered the minimum. (Bowman's Introduction to Practical Chemistry is recommended.)

VII.—NATURAL HISTORY.

Henfrey's Botany.
Carpenter's Comparative Physiology.
Dallas's Animal Kingdom; Green's Manuals.
Whewell's Philosophy of the Inductive Sciences, Vol. I., Book VII., chap. i., Book VIII., chaps. i., ii., iv., Book IX., chap. vi.
Whewell's History of the Inductive Sciences, Vol. III., Books XVI., XVII.
Practical Examinations in Botany and Zoology.

PRACTICAL COURSE FOR COMMERCIAL AND GENERAL PURSUITS.

In order to extend the advantages of higher education to youths intended for commercial and general pursuits, the Senate has resolved to institute special courses of instruction, and to grant Diplomas, conferring the title of Licentiate in Arts, under the following conditions:—

1. To have matriculated in one of the Colleges of the Queen's University.
2. To have pursued, in one of the Colleges of the Queen's University, the course herein prescribed.
3. To have passed the University Examination herein prescribed.

The studies for the Diploma of Licentiate in Arts extend over two Sessions, and comprise attendance on the following Curriculum:—

FIRST SESSION.

Two Languages, of which one may be English.
Mathematics.
Another Course on any subject in the annexed list.

SECOND SESSION.

Greek, Latin, or a Modern Continental Language.
Logic (one Term).
Natural Philosophy.
And two other Courses on subjects in the annexed list.

If any of the courses, except that on Logic, extend over one term only, some other course from the annexed list must be attended as a supplement to it, but not necessarily in the same Session.

Credit will not be given for attending the same course of Lectures a second time.

Attendance on the courses is, in all cases, understood to include passing such Examinations as the College Council shall appoint, and the catechetical parts of the courses of Lectures.

Candidates for the Diploma of Licentiate in Arts must reside at their respective Colleges during at least the first two terms of each Session.

After having completed the above curriculum, each Candidate for the Diploma is required to pass a University Examination in either Greek, Latin, or a Modern Continental Language; in Mathematical Science;

Appendix, No. 1.

and in two other subjects which he is allowed to select from the annexed list, viz. :—

The Mathematical Sciences.	The Modern Continental Languages.
The Experimental Sciences.	Greek.
The Natural Sciences.	Latin.
Goemetrical Drawing.	Logic.
Mensuration, Levelling, and Mapping.	Metaphysics.
Anatomy and Physiology.	History.
English Language and Literature.	Political Economy.

English Composition forms a part of all University Examinations.

Licentiates in Arts who may desire to proceed to the Degree of Bachelor in Arts, may enter directly on the second Session in the course for this Degree, provided they attend in it, instead of the usual curriculum, all the courses prescribed for the first two years which they shall not have already attended in the curriculum for the Diploma of Licentiate.

In compliance with the first of the above specified conditions, the Council of the Queen's College, Galway, has instituted the following course for the Matriculation Examination :—

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

GEOGRAPHY AND THE ENGLISH LANGUAGE.

Geography—Ancient and Modern, Outlines of.
Grammar—English Grammar and Composition.

FACULTY OF LAW.

Diploma of Elementary Law.

Candidates for the Diploma of Elementary Law are required to pass a Matriculation Examination in the following subjects :—

GREEK.

Xenophon—Anabasis, Book I.
Grammar.

LATIN.

One of the following authors :—

Cæsar—Gallic War, Book V.
Virgil—Æneid, Book I.

Retranslation from English into Latin of portions of Cæsar.

HISTORY AND THE ENGLISH LANGUAGE.

History—Outlines of Grecian and Roman History.
Geography—Outlines of Ancient and Modern Geography.
English—English Grammar and Composition.

MATHEMATICS.

Arithmetic—including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

Students who have passed the Matriculation Examination, and have pursued, during three years, the following courses of study, are admitted to Examination for the Diploma of Elementary Law :—

FIRST YEAR.

The Law of Property, and the Principles of Conveyancing.
Jurisprudence.

SECOND YEAR.

Equity and Bankruptcy.
Civil Law.

THIRD YEAR.

Common and Criminal Law.

JUNIOR SCHOLARSHIPS IN LAW.

Of the three Junior Scholarships appropriated to the Faculty of Law, one is awarded to a Student of the First Year, one to a Student of the Second Year, and one to a Student of the Third Year.

SUBJECTS OF EXAMINATION.—FIRST YEAR.

LAW OF PROPERTY, &c.

Williams' Real Property.

JURISPRUDENCE AND CIVIL LAW.

Austin's Province of Jurisprudence. Lect. I.
Selections from the "Traité de Législation" of Dumont's Bentham, viz., "Principes de Législation" (omitting chaps. 6, 9, and 11).
Sandars' Institutes of Justinian, Introduction.
Maine's Ancient Law, chaps. II. and V.

SECOND YEAR.

All the business of the preceding Session.

EQUITY.

Smith's Manual of Equity Jurisprudence.

LAW OF PROPERTY, &c.

Williams' Personal Property; Smith's Lectures on the Law of Contracts.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the first year, together with

Austin's Province of Jurisprudence, Lectures V., VI., and Introduction.
Dumont's Bentham—"Principes du Code Civil," 1st and 2nd Parts.
Sandars' Justinian, Book I.
Stephens' Criminal Law of England, chaps. I., III., IV., V.
Maine's Ancient Law, chaps. VIII., IX., X.

THIRD YEAR.

All the business of the two preceding Sessions.

LAW.

Broom's Commentaries on the Common Law, Books II., III., and IV.
White and Tudor's Leading Cases in Equity, vol. I.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the second year, together with

Sandar's Justinian, Book II.
The remainder of Maine's Ancient Law.
The remainder of Stephens' Criminal Law of England (omitting chap. VII., so far as p. 265, and from p. 338 to the end).
Hallam's Middle Ages, chap. VIII.

THE DEGREES OF LL.B. AND LL.D.

Candidates for the Degree of LL.B. are admitted to Examination for that Degree from the Queen's University in Ireland, one year after they have obtained the Degree of B.A., and completed the above curriculum for the Diploma in Elementary Law.

Candidates for the Degree of LL.D. are admitted to Examination for that Degree from the Queen's University in Ireland, at the expiration of two years after they have obtained the Degree of LL.B.

SENIOR SCHOLARSHIP.

The College is empowered to award one Scholarship of the value of forty pounds, by Examination, to the most distinguished Student who shall have

Appendix No. 1.

proceeded to the Degree of B.A., and who shall have completed the Course of legal study prescribed to candidates for the Degree of LL.B. The following is the course prescribed for Examination :—

JURISPRUDENCE AND CIVIL LAW.

The same as the course in these subjects for the Senior Scholarship in Arts (see p. 22).

PRINCIPLES OF CONSTITUTIONAL AND INTERNATIONAL LAW.

Hallam's Constitutional History of England; Kent's "Lectures on International Law" (prefixed to his "Commentaries"); Letters of "Historicus."

MEDICAL JURISPRUDENCE.

Works recommended—Smith's Analysis of Medical Evidence; Beck's Medical Jurisprudence; Taylor's Medical Jurisprudence; Orfila, Médecine Légale; Christison on Poisons; Abercrombie on the Intellectual Powers; Guy's Medical Jurisprudence; Sedillot, Manuel complet de Médecine Légale.

ENGLISH LAW.

All the business of the preceding Sessions.

LAW OF PROPERTY, &c.

All the business of the preceding Sessions :—

Jarman on Wills; Sugden on Powers; Taylor on Evidence.

PRIVILEGES OF LAW STUDENTS.

By the recent regulations of the Benchers of the King's Inns, candidates for the Bar who attend the Law Lectures in the Queen's Colleges, possess the same privileges as Students who attend the Lectures in Trinity College, Dublin.

Students intending to proceed for the Certificate of the Law Professors, so as to entitle them to serve an apprenticeship of *four* years instead of *five*, under the provisions of *an Act for amending the several Acts for the Regulations of Attorneys and Solicitors* (14 and 15 Vict., cap. 88), are required to enter their names with the Registrar, *either as Matriculated or Non-Matriculated* Students, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session.

Such Students are required to attend all the Lectures and pass all the Examinations prescribed for the first and second years of the course of study for candidates for the Diploma of Elementary Law.

FACULTY OF MEDICINE.

DEGREES OF M.D. AND M.CH.

Each Candidate for the Degree of Doctor in Medicine, or Master in Surgery, is required—

1. To have passed in one of the Colleges of the Queen's University the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University.
2. To have attended in one of the Queen's Colleges, lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months.
3. To have also attended, in some one of the Queen's Colleges, at least two of the courses of Lectures marked with an asterisk in the following list. For the remainder of the courses, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.
4. To pass two University Examinations—the first University Examination and the Degree Examination.

The curriculum shall extend over at least four years, and shall be divided into periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination, prior to entering on the second period.

It is recommended that the first period shall comprise attendance on the following courses of medical lectures :—

*Chemistry.
*Botany with Herborizations for practical study, and Zoology.
*Anatomy and Physiology.
*Practical Anatomy.
*Materia Medica and Pharmacy.

And that the second period shall comprise attendance on the following courses of medical lectures :—

Anatomy and Physiology (*second course*).
Practical Anatomy (*second course*).
*Theory and Practice of Surgery.
*Midwifery.
*Theory and Practice of Medicine.
*Medical Jurisprudence.

In addition to the above courses of lectures, candidates shall have attended, during either the first or second period—

A Modern Continental Language (in one of the Colleges of the University).
Experimental Physics (in one of the Colleges of the University).

Also, during the first period—

Practical Chemistry (in a recognised Laboratory).
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week—a winter session of six months.

And during the second period—

Practical Midwifery, at a recognised Midwifery Hospital, with the clinical lectures therein delivered, for a period of three months; or a Midwifery Dispensary for the same period; or ten cases of Labour under the superintendence of the Medical Officer of any hospital or dispensary where cases of labour are treated.
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered—eighteen months; including either three winter sessions of six months each, or two winter sessions of six months each, and two summer sessions of three months each.

Medical Examinations are held in June, and in September and October.

The June Examinations are Pass Examinations, and commence on the Tuesday following the second Saturday in June.

The Honor Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each candidate for examination in June must forward to the Secretary, on or before the first of June, notice of his intention to offer himself as a candidate, along with his certificates; and each candidate for examination in September or October must forward similar notice, along with his certificates, on or before the first of September.

The First University Examination in Medicine.

The First University Examination may be passed either in June or September.

It is competent for Students to present themselves for the First University Examination at the termination of the first period of the curriculum, or at any subsequent period.

Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period of the curriculum.

The First University Examination comprises the subjects recommended for study during the first period of the curriculum, along with which any Candidate may present himself for examination in Experimental Physics and Modern Languages, if he have already attended in one of the Queen's Colleges the prescribed courses on these subjects.

Appendix, No. 1.

The course of Experimental Physics to be prepared is—

In Mechanics—Experimental proof of the parallelogram of forces; composition and resolution of parallel forces; conditions of equilibrium in the lever, wheel and axle, pulley, inclined plane, and screw; laws of motion—motion of falling bodies.

In Hydrostatics—Equilibrium of fluids; pressure of fluids on plane surfaces; methods of determining the specific gravity of solids, liquids, or gases; method of measuring the pressure of the atmosphere; Mariotte's law; construction and principle of syphon, barometer, manometer, air pump.

In Acoustics—Cause of sound; its propagation and velocity in solids, liquids, or gases; reflexion and refraction of sound; numerical evaluation of musical sounds; construction of syren; use of monochord.

In Heat.—Construction and use of thermometers and pyrometers; laws of the expansion of solids, liquids, and gases; fusion and solidification; specific heat; latent heat; action of freezing mixtures.

In Light.—Experimental proofs of laws of reflexion and refraction; formation of images by plane and spherical mirrors and by lenses; analysis of solar light; dispersion produced by a prism or lens; achromatic prism; achromatic lens; simple and compound microscope; polarization of light by reflexion; by transmission; colours of polarized light.

In Magnetism.—Natural and artificial magnets; neutral line and poles; mutual action of magnets; hypothesis of two magnetic fluids; magnetic induction; terrestrial magnetism; directive action of the earth; magnetic meridian; magnetic declination; inclination; intensity; methods of measuring their amount and variations.

In Electricity.—Development by friction; conductors and non-conductors; mutual action of bodies charged with electricity; measurement of electrical attractions and repulsions; theories of electricity; electrical induction; electroscopes and electrical machines; Leyden jar; properties of electricity—mechanical, thermal, chemical, magnetic, physiological.

Voltaic pile and its modifications; single and two fluid batteries; direction of current in battery; chemical, thermal, and luminous effects of battery; induction of currents by currents; mutual action of currents and magnets; galvanometers; application of electricity to telegraphy; induction coil.

The portions of Zoology to be prepared are—

a. The general characters of the classes of the Animal Kingdom.
b. The first principles of Animal Physiology.
c. The comparative Anatomy and Classification of either the *Vertebrate* or the *Invertebrate* Animals—whichever is selected by the candidate.
d. A special practical knowledge of the leading characters and classification of either some one Vertebrate class, or some one Invertebrate sub-kingdom.

Milne-Edwards' "Zoologie" is recommended as a text-book, or Dr. Knox's translation of it, published by Renshaw, London.

English Composition forms a part of all University Examinations.

Competitors for Honors will be examined in all the subjects of the First University Examination, including Experimental Physics and Modern Languages.

Two Exhibitions, one consisting of two instalments of £20 each, the other of two instalments of £15 each, will be awarded to the best answerers at the Honor Examinations, if they be recommended by the Examiners as possessed of sufficient absolute merit. Further regulations regarding these Exhibitions will be found in p. 40.

The candidates who pass with Honors will be arranged in three classes.

Candidates who postpone passing their First Medical Examination until they present themselves at the Degree Examination are not eligible for Honors with the First Examination.

Both Honor and Pass Examinations will be held in September. The Examination held in June is a Pass Examination.

Degree Examinations in Medicine.

Examinations for the Degrees of M.D. and M.Ch. will be held in June and September.

The Fee for each Degree is Five Pounds.

Each Candidate must be recommended by the President of his College, and produce certificates to the following effect :— *Appendix, No. 1.*

1. A certificate from the Secretary of the Queen's University, that he has passed the Previous Examination, unless the candidate present himself for both Examinations simultaneously.
2. From the Council of his College, that he has passed a full Examination in the subjects of study prescribed in the entrance Course of the Faculty of Arts, and has been admitted a Matriculated Student in the Faculty of Medicine.
3. That he has attended in the Colleges of the Queen's University two of the courses marked with an asterisk on p. 27, lectures on one Modern Language, and lectures on Experimental Physics.
4. Certificates that he has completed all other prescribed courses.

The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education, along with Experimental Physics and one Modern Language, unless an Examination in these subjects shall have been already passed at the First University Examination.

The Examination for the Degree of M.Ch. comprises in addition an Examination in Operative Surgery.*

Candidates who graduate with Honors will be arranged in three classes. Candidates who take a First Class will receive a Medal and Prize. Candidates who take a Second Class will receive a Prize. Candidates who take a Third Class will receive a Certificate of Honor.

The Examination for the Degree with Honors will commence on the last Tuesday in September, and will be followed by the Examination of those candidates who seek to graduate without Honors.

The Examination held in June is a Pass Examination.

Matriculation.

Candidates for the Degree of M.D. in the Queen's University are required to pass a Matriculation Examination in the following subjects :—

GREEK.

Xenophon—The Anabasis, Book I.
Grammar.

LATIN.

One of the following authors :—

Virgil—Æneid, Book I.
Cæsar—Gallic War, Book V.
Retranslation from English into Latin of portions of Cæsar.

ENGLISH.

Grammar and Composition.

MATHEMATICS.

Arithmetic and Algebra :—

The First four Rules of Arithmetic; Vulgar and Decimal Fractions; the Rule of Three; Addition, Subtraction, Multiplication and Division of Algebraical Quantities; Simple Equations.

Geometry :—

Euclid, Book I.

HISTORY AND GEOGRAPHY.

History :—

Outlines of Grecian and Roman History.

Geography :—

Outlines of Ancient and Modern Geography.†

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January, 1865, will be exempted from the Examination in Operative Surgery.

† Rev. T. K. Arnold's Handbooks are recommended.

Appendix, No. 1.

DAYS AND HOURS OF LECTURES.

	Subjects.	Months.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Period.	French,	VI.	10	.	10	10	.	.
	German,	VI.	.	2	.	2	.	.
	Botany and Zoology,	VI.	.	11	.	11	10	11
	Experimental Physics,	VI.	.	12	.	12	.	.
	Chemistry,	VI.	12	.	12	.	12	12
	Logic,		1	.	1	.	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Practical Anatomy,		1	1	1	1	1	.
	Practical Chemistry,		.	2	.	2	.	2
	Materia Medica,		.	4	.	4	.	4
2nd Period.	Practical Anatomy,		1	1	1	1	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Surgery,		4	.	4	.	4	.
	Midwifery,		2	.	2	.	2	1
	Medicine,		.	2	.	2	.	2
	Medical Jurisprudence,		4	.	4	.	4	.

The lectures of the Professors are fully recognised by the Queen's University, the Universities of Dublin, London, Edinburgh, Oxford, Glasgow, Durham; the University and King's College, Aberdeen; the College of Physicians, London; the Royal College of Surgeons in Ireland, England, and Scotland; the Faculty of Physicians and Surgeons, Glasgow; the Apothecaries' Halls of Dublin and London; the Army, Navy, and East India Medical Boards.

The hospitals in connexion with the College are in its immediate vicinity. They contain on an average two hundred patients, and are visited every morning by Professors of the College, who deliver clinical lectures. Attendance upon these hospitals and clinical lectures fully qualifies for the Royal Colleges of Surgeons of England, Ireland, and Scotland, as well as for the Queen's University.

The Anatomical Buildings within the College grounds contain a theatre for Demonstrations and a Dissecting Room, which affords every facility for study.

The Pathological Department of the Medical Museum has received a large and valuable accession of preparations and drawings, the collection of a late eminent teacher. It contains Wax Models representing Skin Affections, and Surgical Diseases both before and after operation. The Anatomical Department contains a variety of Osteological, Vascular, and other preparations, besides Casts and Models. Instruction in Microscopic Anatomy is given in the Physiological Class-room.

The Museum of MATERIA MEDICA contains a perfect collection of the medicines in the British Pharmacopæia, both pure and spurious, and of several foreign ones; of the ores and minerals that furnish medicines, prepared medical plants, and complete series of coloured botanical plates; various apparatus for the application of medical electricity and other operations in connexion with the Materia Medica and Pharmaceutical processes.

In the department of MEDICAL JURISPRUDENCE there are, in addition, the various poisons in their several forms and combinations, and a complete collection of tests and apparatus for exhibiting toxicological and other analyses, and microscopical investigations, &c.

The College has added to its means of teaching the collection of the late DOCTOR MONTGOMERY, formerly Professor of Midwifery in the King

and Queen's College of Physicians in Ireland. It consists of above 600 specimens illustrative of :— *Appendix, No. 1.*

1st. The Anatomy and Physiology of the reproductive system, comparative and human.

2nd. Parturition and deviations from the natural process.

3rd. The diseases of pregnancy and of the puerperal state.

4th. Organic derangements unconnected with these conditions ; and

5th. The Pathology of intra-uterine existence.

The Library of the College contains at present many thousand volumes, and additions are being constantly made. The Medical division comprises almost every work of note in each branch of Medical Science, together with a large collection of costly plates. There is also a Lending Library, from which Students are permitted to borrow books.

SCHOLARSHIPS.

Eight Junior Scholarships are appropriated to the Faculty of Medicine of the value of £25 each. Of these—

Two	are allotted to	Students of the	First Year.
Two	„	„	Second Year.
Two	„	„	Third Year.
Two	„	„	Fourth Year.

Regulations respecting Medical Scholarships and Exhibitions.

(Scholars are required to pay only one-half of the ordinary class fee for each obligatory course of lectures.)

All Scholars and Exhibitioners are required to pass the Sessional Examination.

First Year's Scholarships.

All Students who have passed the Matriculation Examination may compete for the Scholarships of the first year.

For the one Scholarship the Examination will embrace the course prescribed for the Literary Scholarships of the first year, in the Faculty of Arts.

For the other Scholarship the course prescribed for Science Scholarships of the first year in the Faculty of Arts.

For these courses see p. 20.

If at either of these Examinations a competent candidate do not present himself, the Scholarship assigned to that department may be awarded to the other department, if there be in the latter a second candidate duly qualified.

A Student to whom a Scholarship of the first year has been awarded, shall attend the following courses :—

A Modern Language.
Natural Philosophy.
Anatomy.
Chemistry.
Botany and Zoology.

Second Year's Scholarships.

A Candidate for second year's Scholarship may select for the subjects of his Examination, in addition to Anatomy and Physiology, or Practical Anatomy, any two or more of the following subjects. The value of each subject shall be estimated according to the number placed opposite to it in

Appendix, No. 1.

the following list, and no mark under 100 shall be taken into account in any subject :—

Anatomy and Physiology, or Practical Anatomy,	1,000
Chemistry,	500
Botany and Zoology,	500
A Modern Language,	500
Natural Philosophy,	500
Materia Medica,	500

SUBJECTS OF EXAMINATION.

FRENCH.*

Mignet—Révolution Française, from Chap. VI. to the end of the work.
Racine—Athalie.
Outlines of French Literature.
Translation from English into French.

GERMAN.*

Schiller—Wilhelm Tell, Acts I. and II.; the Minor Poems.
Outlines of German Literature.
Translation from English into German.

NATURAL PHILOSOPHY.—Elements of Mechanics, Hydrostatics, Pneumatics, Optics, Heat, and Electricity.

ZOOLOGY.—Vertebrata.

BOTANY.—Structural and Physiological Botany; Principles of Classification; Characters of the Natural Orders yielding medicinal plants.

ANATOMY AND PHYSIOLOGY.—Histology, and Functions of the Viscera.

PRACTICAL ANATOMY.—Osteology and Arthrology.

MATERIA MEDICA.—Modifications of the action and doses of Medicines by age, sex, habit, &c.; Modes and forms of exhibiting Medicines; Heat in Pharmacy and Medical Practice; Medical Gums, Sugar, Starch, Oils; Alcohol for medical and pharmaceutical purposes.

CHEMISTRY.—General Principles of Chemical Philosophy; Laws of Combination by weight and volume; Atomic Theory; Nature of Salts, &c.; Chemistry of non-metallic bodies; Chemistry of Metals; Organic Chemistry.

A Student to whom a Scholarship of the second year has been awarded shall attend such of the medical courses assigned to the first period of the curriculum prescribed in the University regulations as he has not already taken. He shall also take a course of Modern Languages and of Natural Philosophy, if he have not previously done so in a Queen's College.

THIRD YEAR'S SCHOLARSHIPS.

To be allowed to compete for a Scholarship of the third year, a Student must have attended in a Queen's College, or in some University capable of granting Degrees in Arts, Law, and Medicine, four of the following courses :—

Anatomy and Physiology.
Chemistry.
Botany.
Zoology.
Practical Chemistry.
Practical Anatomy.
Materia Medica.

The Examination shall include the following subjects. The value of each shall be estimated by the number placed opposite it in the following list; and no mark under 300 shall be taken into account in either of the first named, nor under 200 in the last named :—

Practical Anatomy,	1,000
Materia Medica,	1,000
Practical Chemistry,	500

* The candidate may select either French or German.

SUBJECTS OF EXAMINATION.

PRACTICAL ANATOMY.—Bones, Joints, Viscera, and Brain.

During the Examination, Candidates may be called on to make dissections, or to describe structures placed before them.

MATERIA MEDICA.—Tonics, Astringents, Diaphoretics, Alkaloids, and Cathartics, Emmenagogues, Narcotics.

Symptoms indicating their unhealthy action, and treatment to counteract such action.

PRACTICAL CHEMISTRY.—As taught in the class.

A Student to whom a third year's Scholarship has been awarded, shall attend, during the year of his election, four at least of the courses prescribed for the second period in the University regulations.

FOURTH YEAR'S SCHOLARSHIPS.

To be allowed to compete for a Scholarship of the fourth year, the candidate must have attended all the strictly professional courses of the first period, and must have attended in a Queen's College, or a University capable of granting Degrees in Arts, Law, and Medicine, three at least of those of the second period prescribed in the regulations of the Queen's University.

A candidate for fourth year's Scholarship may choose any four of the following subjects, provided he has attended lectures upon them, as those in which he shall be examined. The value of each subject shall be estimated by the number assigned to it in the following list, and no mark under 300 shall be taken into account:—

Anatomy and Physiology,	1,000
Practical Anatomy,	1,000
Theory and Practice of Surgery,	1,000
Midwifery and Diseases of Women and Children,	1,000
Theory and Practice of Medicine,	1,000
Medical Jurisprudence,	1,000
Materia Medica,	1,000

SUBJECTS OF EXAMINATION.

ANATOMY AND PHYSIOLOGY.—Histology, Physiology, and Development. Candidates may be required to name objects under the Microscope.

PRACTICAL ANATOMY.—Topographic and Surgical Anatomy. Candidates will be required to make dissections, or describe structures placed before them.

THERAPEUTICS AND PATHOLOGY.—1. Candidates must be prepared to answer in any part of the previous course of lectures in Materia Medica; Poisonous actions of Medicaments; symptoms and tests. They will also be required to write prescriptions in proper form on given subjects.

2. Diseases of the brain and nervous system.

3. Injuries of the Head; diseases of the Rectum; amputation of the Foot.

4. Anatomy and Physiology of Gravid womb throughout Mammalia; diseases of parturient women; diseases of childhood.

A Student to whom a Scholarship of the fourth year has been awarded shall attend during the year of his election two at least of the practical courses prescribed for the second period in the University regulations; and if more courses are required to complete the curriculum, both as to professional and non-professional subjects, he shall also attend them.

NON-MATRICULATED STUDENTS.

Any course or courses of lectures may be attended by Non-Matriculated Students, without passing any examination, on paying the regulated class fee to each Professor whose lectures they attend. Such Students are admissible to the Library on payment of a fee of Fifteen Shillings for the year.

Appendix, No. 1.

SCHOOL OF CIVIL ENGINEERING.

Candidates for the Diploma in Civil Engineering are required:—

1. To have been admitted Matriculated Students of one of the Colleges of the Queen's University in the Department of Civil Engineering.
2. To have studied in the Colleges of the Queen's University the course herein prescribed.
3. To have passed two University Examinations.

Candidates for Matriculation are examined in the following subjects;—

MATHEMATICS.

Arithmetic:—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra:—

Including Fractions, Proportion, and the Solution of Simple Equations.

Geometry:—

Euclid, Books I., II., III., VI., with Definitions of Book V.

HISTORY, GEOGRAPHY, AND THE ENGLISH LANGUAGE.

History:—

Outlines of Ancient History.

Geography:—

Outlines of Ancient and Modern Geography.

English:—

English Grammar and Composition.

The course for the Diploma in Civil Engineering usually extends over three Sessions, and comprises attendance on the following curriculum:—

FIRST SESSION.

Mathematics (first course).
Chemistry.
A Modern Language.
Geometrical Drawing.
Office Work.

SECOND SESSION.

Mathematics (second course).
Mathematical Physics.
Experimental Physics.
Mineralogy, Geology, and Physical Geography.
Civil Engineering.
Office Work.
Field Work.

THIRD SESSION.

Natural Philosophy (applied).
Civil and Mechanical Engineering.
Office Work.
Field Work.
Engineering Excursions.

Attendance on these courses in all cases includes passing such Examinations as may be appointed by the College Council, as well as the catechetical parts of the courses of lectures.

Engineering Students must reside at their respective Colleges during at least the first two Terms of each Session, and can be exempted from residence during the third Term also, only by a special grace of the College Council.

The study of the Engineering Curriculum may be extended over more than three Sessions, on the recommendation of the College Council, and under such regulations as the Council shall impose. Some relaxation of

the order in which the subjects shall be studied will be admitted, on the recommendation of the Council. *Appendix, No. 1.*

Candidates will, on the special recommendation of the College Council, be admitted to the Diploma after two year's residence instead of three, if their previous acquaintance with a sufficient group of the subjects above set down for study in the first and second Sessions is deemed by the Council satisfactory. In such cases the certificate of the Council will be accepted in lieu of attendance upon these courses, but will not exempt candidates from the University Examinations in them.

Candidates for the Diploma in Civil Engineering are required to pass two University Examinations,—the First University Examination which is held simultaneously in each of the Colleges of the University, and the Diploma Examination which is held in the Hall of the University in Dublin.

Students who have completed their second Session must attempt the First University Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

Candidates who have attempted, but failed to pass, the First University Examination in October, will be admitted to a Supplementary Examination.

First University Examination in Engineering.

The course for the First University Examination includes French; Geometrical Drawing; Mathematics (first course); Mathematics (second course); Mensuration, Levelling, and Mapping; Experimental Physics.

The Examination will be held shortly after the commencement of the College Session, upon days which will be appointed before the 1st of October.

Each candidate must forward to the Secretary, on or before the 1st of October, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes, the names in each class being placed alphabetically.

Two Exhibitions, one of the annual value of £20 for two years, the other of the annual value of £15 for two years, will be competed for at the Honor Examination. For the regulations regarding these Exhibitions see p. 40.

Examination for the Diploma in Civil Engineering.

The Examination for the Diploma in Civil Engineering will embrace the following course:—Engineering; Mensuration, Levelling and Mapping; Mathematical Physics; Natural Philosophy, applied; Chemistry; Mineralogy, Geology, and Physical Geography. Each candidate will also be required to produce at this Examination the Field-notes and Drawings of a Survey made by him.

Candidates who have completed the Engineering Course may present themselves as candidates for the Diploma, either with Honors or without Honors.

The Examinations for the Diploma in Civil Engineering will commence on the last Tuesday in September, and end on the second Tuesday in October. The Honor Examination will precede the Pass.

Each Candidate must forward to the Secretary, on or before the 1st of

Appendix, No. 1.

September, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes; the names in each class will be placed alphabetically.

Candidates who take a First Class will receive a Medal and Prize.

Candidates who take a Second Class will receive a Prize.

Candidates who take a Third Class will receive a Certificate of Honor.

Candidates are recommended to provide themselves with drawing instruments and materials, viz.:—a T square; pair of set squares; pair of compasses, with pen and pencil legs; drawing-pen; 12-inch scale, divided on one edge decimally to two chains to an inch, and on the other side, duodecimally to five feet to an inch; an offset scale 20 and 40; also pencils, papers, colours, &c.

DAYS AND HOURS OF LECTURES.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	10	.	10	10	.	.
	Chemistry,	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
	Geometrical Drawing,	1, 2, 3,	11	.	11	.	11	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
2nd Year	Civil Engineering,	1, 2, 3,	10	.	10	.	10	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Mineralogy, &c.,	1, 2, 3,	1	.	1	.	1	.
	Mathematical Physics (pass),	.	12	.	12	.	.	.
	Experimental Physics (pass),	1, 2, 3,	.	12	.	12	.	.
	Experimental Physics (honor),	1, 2, 3,	11	.	11	.	.	.
	Mathematical Physics (honor),	1, 2, 3,	.	2	.	2	.	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
3rd Year	Civil Engineering,	1, 2, 3,	3	.	3	.	3	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Natural Philosophy (applied),	1, 2, 3,	.	11	.	.	.	11

SCHOLARSHIPS.

Of the five Scholarships appropriated to the Department of Engineering, two are awarded to Students of the first year, two to Students of the second year, and one to a Student of the third year.

SUBJECTS OF EXAMINATION.—FIRST YEAR.

The course prescribed for Science Scholarship of the first year.

For this course, see p. 18.

SECOND YEAR.

The course of Elementary Mathematics prescribed for the Science Scholarship of the second year, together with the courses of Chemistry, Modern Languages as prescribed for Literary Scholarship of second year, Office Work, and Geometrical Drawing prescribed in the course for Students in Engineering of the first year.

THIRD YEAR.

The courses of Mathematics, Mathematical and Experimental Physics, Mineralogy and Geology, Engineering and Office Work, prescribed to Honor Students of the second year.

PUBLIC COMPETITIVE EXAMINATIONS.

THE INDIAN CIVIL SERVICE.

The appointments to the Indian Civil Service have been thrown open to public competition, and are given by Examinations held under the Civil Service Commissioners.

For the subjects of Examination, and the marks allotted to each, and for the conditions under which candidates may present themselves, *see* p. 41.

As the Committee, upon whose suggestions the course was framed, contemplate that the candidates for examination for the above appointments will be, for the most part, successful competitors for the highest Collegiate and University distinctions, and anticipate that such candidates will be found to have in general aimed at attaining remarkable proficiency in some subjects of examination to the exclusion of others, classes suited to such advanced Students have been opened in Queen's College, Galway, in the following branches:—

ENGLISH LANGUAGE AND LITERATURE.—Composition, English Literature and History, including that of the Laws and Constitution. The Professor of History and English Literature will deliver two advanced courses on these subjects.

LANGUAGE, LITERATURE, AND HISTORY OF GREECE.—Two advanced courses will be delivered by the Professor of Greek, embracing all the great departments of Grecian Literature. Minute attention will be given to Grammatical Analysis, and to the Theory and Practice of Composition in Prose and Verse.

LANGUAGE, LITERATURE, AND HISTORY OF ROME.—Two advanced courses will be delivered by the Professor of Latin, embracing all the great departments of Roman Literature. Minute attention will be given to Grammatical Analysis, and to the Theory and Practice of Composition in Prose and Verse.

LANGUAGE, LITERATURE, AND HISTORY OF FRANCE—LANGUAGE, LITERATURE, AND HISTORY OF GERMANY.—The Professor of Modern Languages delivers, every Session, five courses of lectures on the Language, Literature, and History of France and Germany.

MATHEMATICS, PURE AND MIXED—Four advanced courses will be delivered by the Professors of Mathematics and Natural Philosophy, embracing the following branches, so far as the attainments of the classes will permit:—

Pure Mathematics:—

Differential and Integral Calculus; Calculus of Variations; Calculus of Operations; Calculus of Differences; Analytic Geometry of two and three dimensions; Pure Geometry of two and three dimensions.

Mixed Mathematics:—

Mechanics (Duhamel's Mécanique and Lagrange's Mécanique Analytique).—Astronomy—Lunar and Planetary Theories, Tides, Precession and Nutation; Figure of the Earth (Newton's Principia, and Pratt's Mechanical Philosophy).

Appendix, No. 1.

NATURAL SCIENCES—CHEMISTRY.—A laboratory course may be taken out under the instruction of the Professor and his Assistant, in addition to the general course.

ELECTRICITY AND MAGNETISM.—An advanced course of lectures will be delivered on Experimental Physics, embracing Electricity and Magnetism, Heat, Light, and Sound.

NATURAL HISTORY, GEOLOGY, AND MINERALOGY.—The usual courses of the Professors of Natural History, and of Geology and Mineralogy, will be found sufficient.

MORAL SCIENCES.—The Professor of Logic and Metaphysics will deliver two advanced courses of lectures—one on Logic, Deductive and Inductive, and one on Moral and Political Philosophy. The Students will also be exercised in oral examination on standard authors, and in the writing of essays on the objects of the course.

Students may select at their option any of the above courses.

Fee for attendance on each course, £2, with the exception of the laboratory course in the Chemical Department, the fee for which depends on the time spent by the Student in the Laboratory.

An annual fee of Five Shillings to be paid to the College by each Student in addition to the class fees.

INDIAN ENGINEERING ESTABLISHMENT.

For the regulations for the Competitive Examination for appointments in the Indian Engineering Establishment see Appendix.

Two of the three years which candidates for the Civil Engineering Department of the Indian Service are required to pass in the office of a Civil Engineer are dispensed with in favour of Students who have studied for two years in the Engineering School of this College.

A highly advantageous arrangement has been made to enable such candidates to complete their qualifications by passing a year in the office of a Civil Engineer.

EXAMINATIONS FOR APPOINTMENTS IN THE HOME CIVIL SERVICE AND FOR DIRECT APPOINTMENTS TO THE ADVANCED OR PRACTICAL CLASS OF THE ROYAL MILITARY ACADEMY AT WOOLWICH.

Classes have been formed in the Queen's College, Galway, for the purpose of preparing Students for the Examinations prescribed for the appointments above mentioned.

Gentlemen intending to join these classes may obtain the requisite information on application to the Registrar, Queen's College, Galway.

APPENDIX.

Prizes Founded by Public Subscription.

At a public meeting of the University in October, 1861, Sir Robert Peel offered the sum of £1,200 to found three exhibitions* of £40 each, to be competed for annually for ten years; and he expressed his desire that these prizes should be tenable along with the small Scholarships attached to the Queen's Colleges, in order that his benefaction might have the effect of increasing the value of the rewards provided for the most deserving students.

When announcing this munificent gift, Sir Robert Peel invited others to co-operate with him in thus endeavouring to promote United Education, without adding to the burden on the public purse; and his invitation met with so ready a response, that it became necessary to form a Committee, which should take charge of the subscriptions, and make regulations for the proper allocation of the funds. This Committee consisted of Sir Robert Peel, Bart., M.P. (*Chairman*); the Duke of Leinster; the Lord Talbot de Malahide, F.R.S.; the Right Honorable Abraham Brewster, M.A., Q.C.; Sir James Emerson Tennent, LL.D.; James Naper, D.L.; Alexander Thom, Esq.; Benjamin Lee Guinness, Esq.; William Malcomson, Esq.; and G. Johnstone Stoney, M.A., F.R.S. (*Honorary Secretary*).

Prizes which have been Founded.

This munificence on the part of the public has enabled the Committee to found the following prizes, to be competed for annually for ten years; and to place at interest a considerable sum,† which will accumulate and form the nucleus of a fund for continuing these most useful aids to learning beyond that time.

Exhibitions in the Faculty of Arts.

Three exhibitions of £20 a-year for three years, three exhibitions of £15 a-year for three years, and two exhibitions of £10 a-year for three years, will be competed for annually in the Faculty of Arts. The three £20 exhibitions will be awarded to the candidates who stand foremost in order of merit from each College at the First University Examination in Arts; and the three £15 exhibitions to the candidates who stand second in order of merit from each College; provided that their names appear in the First Class of the division list at that examination. Of the two £10 exhibitions, one will be awarded to the best answerer in Mathematical Science, and the other to the best answerer in the Ancient Classics at the First University Examination. The £10 exhibitions are open to the competition of candidates from all the Colleges, and may be held along with one of the larger exhibitions.

Each candidate will be deemed a Student of that College in which he shall have attended the Lectures of the Second Session; and no Student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

* This allocation was afterwards changed, and Sir Robert Peel's benefaction merged in the general fund, in order that it might aid in establishing the connected series of prizes which the support of the public has enabled the Committee to found.

† £1,980 has been already invested, and the sum reserved for accumulation will probably be soon raised to £3,000. It is the intention of the Committee to add to the reserve fund whatever further sums may be at their disposal from lapsed exhibitions or other sources; as it is very important that the assistance which is now being afforded for ten years to students in the Queen's Colleges should not be allowed to come abruptly to an end at the close of that period.

Appendix, No. 1.

The first instalment of each exhibition will be paid at the time of competition; the second when the exhibitioner takes the Degree of B.A. in the Queen's University, provided he graduate with honors, and within two academic years; and the third when he takes the Degree of M.A. in the Queen's University, provided he obtain it within three academic years from the time of competition.

Exhibitions in the Faculty of Medicine.

Two exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be competed for annually in the Faculty of Medicine. These exhibitions will be awarded for proficiency in the non-professional part of the First University Examination in Medicine: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The exhibitions in Medicine will be paid in two equal instalments: one at the time of competition; the other when the exhibitioner takes the Degree of M.D. in the Queen's University, provided that he graduate with honors, and within three academic years from the time of competition.

Exhibitions in the School of Engineering.

Two exhibitions, one of £20 a-year for two years, and the other of £15 a-year for two years, will be competed for annually in the School of Engineering. These exhibitions will be awarded at the First University Examination in Engineering: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The first instalment of each exhibition will be paid at the time of competition; the other when the exhibitioner takes the Diploma in Engineering of the Queen's University, provided that he take honors with it, and obtain it within two academic years from the time of competition.

Prizes in Composition, open to the competition of Graduates and Undergraduates.

Two prizes for English prose composition, one of £10 worth of books, and the other of £5 worth of books, have been founded, and are open to the competition of all members of the University who shall not have been graduated for more than three years at the time of competition, and who shall not have already twice obtained one or other of these prizes.

Prizes in Composition, open to the competition of all Undergraduates.

Two prizes in composition, one for English prose, the other for Greek or Latin prose, and each consisting of £5 worth of books, have been founded, and are open to the competition of all undergraduates, provided that neither the English nor the Classical prize be awarded oftener than twice to any student.

Prize in Composition, limited to the competition of Undergraduates in Medicine.

Appendix, No. 1.

A prize of £5 worth of books has been founded, for a thesis on a subject to be prescribed, and is limited to the competition of the undergraduates in Medicine who shall not have already twice received the prize.

The subjects on which the competitors for composition prizes are to write will be announced on or before the first of June in each year; the compositions, with fictitious signatures, are to be sent in to the Secretary of the University, on or before the first of the following September, and the successful competitors will be declared at the next public meeting of the University.

Prizes at Entrance.

Two prizes for English prose composition, and two prizes for Geometry, have been founded in each College, to be awarded annually at entrance: first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All the exhibitions and prizes now founded by public subscription shall be tenable along with any other scholarships, exhibitions, or prizes to which the successful competitors may be otherwise entitled.

Persons who wish to add to this Fund may find the following forms of use:—

FORM OF DONATION.

I enclose Pounds sterling, and desire that this sum be expended in founding Exhibitions or other Prizes to encourage learning and promote industry among the Students and Graduates of the Queen's University in Ireland.

Dated at this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

FORM OF SUBSCRIPTION FOR A TERM OF YEARS.

I enclose as the First Instalment of my Subscription to the *Fund for the Endowment of Prizes, in connexion with the Queen's University in Ireland*, and I will cause an equal sum to be lodged in the Bank of Ireland to the credit of the same Fund, before the first of January in *each* of the next years.

Dated this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

EXAMINATIONS FOR THE CIVIL SERVICE OF INDIA.

REGULATIONS for the OPEN COMPETITION of 1866.*

1. On Monday, March 19, 1866, and following days, an examination of candidates will be held in London. Not less than candidates will be selected, if so many shall be found duly qualified. Of these,

* The regulations are liable to be altered in future years.

Appendix, No. 1.

will be selected for the Presidency of Bengal [for the Upper Provinces, and for the Lower Provinces], for that of Madras, and for that of Bombay.*—Notice will hereafter be given of the days and place of examination.

2. Any natural-born subject of Her Majesty, who shall be desirous of entering the Civil Service of India, will be entitled to be examined at such examination, provided he shall, on or before the 1st February, 1866, have transmitted to the Civil Service Commissioners, Dean's Yard, London, S.W.:—

(*a.*) A certificate of his birth, showing that his age on the 1st March, 1866, will be above seventeen years and under twenty-one years.
(*b.*) A certificate, signed by a physician or surgeon, of his having no disease, constitutional affection, or bodily infirmity, unfitting him for the Civil Service of India.
(*c.*) Satisfactory proof of good moral character.
(*d.*) A statement of those of the branches of knowledge hereinafter enumerated in which he desires to be examined.†

3. In any case in which a doubt may arise as to the eligibility of a candidate in respect of age, health, or character, such inquiries as may be necessary will be instituted by the Civil Service Commissioners.

4. The examination will take place only in the following branches of knowledge ‡:—

	Marks.
English Language and Literature:—	
Composition,	500
English Literature and History, including that of the Laws and Constitution,	1,000
	1,500
Language, Literature, and History of Greece,	750
" " Rome,	750
" " France,	375
" " Germany,	375
" " Italy,	375
Mathematics, Pure and Mixed,	1,250
Natural Science; that is, (1.) Chemistry, (2.) Electricity and Magnetism, (3.) Natural History, (4.) Geology, and (5.) Mineralogy,	500
*** No candidate will be allowed to be examined in more than three of the branches of knowledge included under this head, and the total (500 marks) may be obtained by adequate proficiency in any one.	
Moral Sciences; that is, Logic, Mental and Moral Philosophy,	500
Sanskrit Language and Literature,	375
Arabic Language and Literature,	375
	7,125

5. The merit of the persons examined will be estimated by marks, and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. No candidate will be allowed any marks in respect of any subject of

* The number of appointments to be made, and the number in each Presidency, &c., will be announced hereafter.

† Candidates are at liberty to send in their names and evidence of age as soon as they think fit to do so; but evidence of health and character must bear date not earlier than the 1st January, 1866.

‡ It should be understood that candidates are at liberty to name at their pleasure any or all of these branches of knowledge (subject only to the restriction above mentioned as to Natural Science), and that no subjects are *obligatory*.

examination unless he shall be considered to possess a *competent knowledge* of that subject.* *Appendix, No. 1.*

7. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary.

8. The marks obtained by each candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the candidates who shall have obtained a greater aggregate number of marks than any of the remaining candidates will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India. They shall be permitted to choose, according to the order in which they stand, as long as a choice remains, the Presidency (and in Bengal, the division of the Presidency) to which they shall be appointed.

9. Selected candidates before proceeding to India will be on probation for two years, during which time they will be examined periodically with the view of testing their progress in the following subjects † :—

	Marks.
1. Oriental Languages :—	
Sanskrit,	500
Vernacular Languages of India (each),	400
2. The History and Geography of India,	350
3. Law,	1,250
4. Political Economy,	350

In these examinations, as in the open competition, the merit of the candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one examination. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary. The marks obtained at each of such periodical examinations will be added to those previously or subsequently obtained. The last of these examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected candidate is qualified for the Civil Service of India.

10. No candidate will be permitted to proceed to India until he shall have passed the Final Examination, and received a certificate of qualification from the Civil Service Commissioners, or after he shall have attained the age of twenty-four years.

11. The selected candidates who at the Final Examination shall be found to have a competent knowledge of the subjects specified in Regulation 9, shall be adjudged to have passed, and to be entitled to be appointed to the Civil Service of India.

12. The seniority in the Civil Service of India of the selected candidates shall be determined according to the order in which they stand on the list resulting from the Final Examination.

13. No person will, even after passing the Final Examination, be allowed to proceed to India unless he shall comply with the regulations in force at the time for the Civil Service of India, and shall be of sound bodily health and good moral character. The Civil Service Commissioners

* "Nothing can be further from our wish than to hold out premiums for knowledge of wide surface and of small depth. *We are of opinion that a candidate ought to be allowed no credit at all for taking up a subject in which he is a mere smatterer.*"—Report of Committee of 1854.

† Full instructions as to the course of study to be pursued will be issued to the successful candidates as soon as possible after the result of the open competition is declared.

Appendix, No. 1.

will require such further evidence on these points as they may deem necessary before granting their certificate of qualification.

14. Applications from persons desirous to be admitted as candidates are to be addressed to the Secretary to the Civil Service Commissioners, Dean's Yard, London, S.W.

NOTE.—(1.) The Secretary of State for India in Council has authorized the Civil Service Commissioners to state that it is his intention to allow the sum of £100 for the first year of probation, and £200 for the second year to each selected candidate who shall have passed the required examinations to the satisfaction of the Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected candidates.

(2.) All selected candidates will be required, at the commencement of the second year of probation, to attend at the India Office, to make the necessary arrangements for entering into covenants (binding themselves, amongst other things, to refund in certain cases the amount of their allowance in case of their failing to proceed to India), and for giving a bond for £1,000, jointly with two sureties, for the due fulfilment of the same. The stamps payable by civilians on their appointment amount to £3 10*s*.

(3.) Candidates rejected at the Final Examination of 1868 will in no case be allowed to present themselves for re-examination.

COMPETITIVE EXAMINATION of CANDIDATES for JUNIOR APPOINTMENTS in the ENGINEER ESTABLISHMENT of the DEPARTMENT of PUBLIC WORKS in INDIA, to be held at the INDIA OFFICE in LONDON, in JULY, 1866.

Candidates must be British subjects, and must not have passed their twenty-fourth birthday (in proof of which a satisfactory certificate must be produced), and they must have complied with one or other of the three following conditions :—

1. They must have passed not less than three years as Articled Pupils of a Civil, Mechanical, or Mining Engineer ; or,
2. Not less than three years in practice under a Civil, Mechanical, or Mining Engineer ; or,
3. Not less than three years altogether, of which part may have been passed in practice under a Civil, Mechanical, or Mining Engineer, and part in studying Civil, Mechanical, or Mining Engineering, in a School or College recognised by the Secretary of State as possessing an efficient class for instruction in one or other of those professions, with the proviso that one year at least of the three must have been passed in practice under a Civil, Mechanical, or Mining Engineer.

On these points also they must be provided with satisfactory certificates, and they must likewise produce testimonials of good moral character and conduct from the engineers or professors under whom they have served, or by whom they have been instructed.

These documents must be delivered at the Department of Public Works in this Office between the 1st and 30th days of June next, both inclusive, during which period only will applications be received.

The names of the candidates will then be registered, and they will be directed to appear for medical examination before the Indian Medical Board, on the first Saturday in July, between the hours of 1 and 3 P.M.

If then certified to be constitutionally fit for service in India, they will be required to attend, at 9 A.M. precisely, on the succeeding Monday and five following days at a competitive examination which will be held in this office.

The candidates will first be required to write English from dictation, and unless found able to do so with accuracy and facility, will not be permitted to remain during the subsequent examination. The other subjects

of examination and the maximum number of marks obtainable for proficiency in each class of subjects will be the following :— *Appendix, No. 1.*

Mathematics.		
Arithmetic, *Mensuration*, and *Trigonometry*, including heights and distances,		
Algebra: Elementary Principles; Simple and Quadratic Equations; Surds; Ratios and Proportion; Arithmetical and Geometrical Progression; Combinations, and the Binomial Theorem,		220
Euclid: 1st, 2nd, 3rd, 4th, 6th, and first 21 Propositions of the 11th Book,		
Statics: Composition and Resolution of Forces, the Centre of Gravity, the Mechanical Power; Roofs, Arches, and Bridges; Strength of Materials; and Friction,		
Dynamics: First Principles; Collision of Bodies; Uniformly Accelerated Motion; Circular Motion and Centrifugal Force; Labour and Machinery,		180
Hydrostatics and *Hydraulics:* Pressure of Fluids; Specific Gravity, and Equilibrium of Floating Bodies; Elastic Fluids and Atmospheric Pressure; Hydrostatic Machines,		
Engineering.		
Projects for Bridges, Locks, Dams, Roads, and other Engineering Works,		
Making Working Drawings of Machinery and Plans, Elevations and Sections of Buildings,		280
Carpentry, Ironwork, and Properties of Materials in general,		
Free-hand Drawing,		
Map Drawing,		
Framing of Estimates and Specifications from given plans and data,		80
Surveying.		
Trigonometrical Surveying and traversing with the Theodolite,		
Land Surveying with Compass and Chain, and Plotting from a Field-Book,		240
Levelling and Use of the Instruments employed,		
Geometrical Drawing,		
		1,000

No candidate will be passed who shall not obtain 600 marks, of which not less than 200 must be awarded for Mathematics, not less than 180 for Engineering, and not less than 100 for Surveying. The candidates who may obtain the prescribed minimum number of marks will be ranked by the Examiners in the order of the numbers they may severally obtain; and of these the ten who may stand highest on the list will be appointed "Assistant Engineers of the third grade," and will be considered on probation for the first twelve months.

Each Probationary Assistant Engineer must, within a month of his nomination, sign a covenant, describing the terms and conditions of his appointment, and must embark for India, when required to do so by the Secretary of State in Council, who will provide for the expenses of his passage. Any nominee not embarking, when required, will forfeit his appointment. Otherwise he will be allowed pay, at the rate of 170 rupees (which is about the equivalent of £17 in English money) a month from the date of his appointment.

On arriving in India, he will, at the discretion of the Local Government, either be placed in a Civil Engineering College, or other educational institution, in order to acquire a colloquial knowledge of one of the native languages, and to receive further instruction in his profession, or be at once employed as a Civil Engineer.

India Office, 25th July, 1865.

N.B.—The papers given at former examinations have been printed by order of the House of Commons, and may be obtained from Messrs. Hansard, of Great Queen-street, Lincoln's-Inn-Fields.

Appendix, No. 1.

COMPETITIVE EXAMINATION of CANDIDATES for appointment as ASSISTANT SUPERINTENDENTS of the FOURTH GRADE in the TELEGRAPH DEPARTMENT in INDIA, to be held in LONDON, in JUNE, 1866.

Candidates must be native British subjects, and not less than eighteen nor more than twenty-four years of age, and must have complied with one or other of the three following conditions:—

1. They must have passed not less than two years in the service of one of the English Telegraph Companies, or of a Foreign Telegraphic Administration; or,
2. Not less than two years as articled pupils of, or in practice under, a Telegraphic Engineer; or,
3. Not less than two years in a school or college recognised by the Secretary of State as possessing an efficient class for instruction in Chemistry and Physics, and during six months of that period must have given special attention to those subjects.

On these points they must be provided with satisfactory certificates, which must be delivered at the Department of Public Works in this Office between the 1st and 26th days of May next, both inclusive, between which days only will applications be received.

The names of the candidates will then be registered, and they will be directed to appear for medical examination before the Indian Medical Board, on Saturday, the 2nd of June, between the hours of 1 and 3, P.M.

If then certified to be of constitutions sufficiently vigorous to bear the fatigue and exposure to which they would be liable when serving in India, they will be required to attend, at 9, A.M. precisely, on the succeeding Monday and following days, at a competitive examination, which will be held in this Office.

The candidates will first be required to write English from dictation, and unless found able to do so with accuracy and facility, will not be permitted to remain during the subsequent examination. The other subjects of examination and the maximum number of marks obtainable for proficiency in each class of subjects will be the following:—

	Marks.
1. *Arithmetic, Book-keeping* by single and double entry, *Mensuration*,	1,000
2. *Euclid*: 1st, 2nd, and 3rd Books, and *Algebra*, including simple and quadratic equations,	1,000
3. *Geography, Plane Trigonometry*, including practical knowledge of methods for heights and distances, *Use of the Logarithmic and Trigonometrical Tables*,	1,000
4. *Dynamics*, including *Statics*,	1,500
5. *Elements of Physics*, including *Electricity and Elements of Chemistry*,	1,500
6. *Theory of Electricity*; and *Telegraphic Testing*,	3,000

No candidate will be passed who shall not obtain 2,000 marks, of which not less than 1,000 must be awarded for Dynamics and Physics. The candidates who may obtain the prescribed minimum number of marks will be ranked by the Examiners in the order of the numbers they may severally obtain; and of these the twenty-five who may stand highest on the list will be appointed.

The successful candidates must, within a month of their nomination, sign covenants, describing the terms and conditions of their appointment, and must embark for India, when required to do so by the Secretary of State in Council, who will provide for the expenses of their passage. Any nominee not embarking when required will forfeit his appointment.

India Office.

INDIAN TELEGRAPH DEPARTMENT.

Present Classification of Appointments above the Grade of Signaller.

No. of Officers.	Grade.	Monthly Pay of each Officer.
		Rs.
1	Director General, . .	3,000.
1	Scientific Assistant to do. .	From 1,000 to Rs. 1,500.
1	Director of Division, .	1,000 increasing by annual additions of Rs. 100 per mensem, to a maximum of Rs. 1,500.
2	" " . .	700 " by annual additions of Rs. 50 per mensem, to a maximum of Rs. 1,000.
1	Superintendent of Circle, .	700.
2	" " .	600.
4	" " .	500.
5	" " .	400.
3	" " .	350.
15	Assistant Superintendents of the First Grade,	300.
20	" of Second Grade,	250.
30	" of Third Grade,	200.
40	" of Fourth Grade,	150.

RULES of the HONORABLE SOCIETY of KING'S INNS, with regard to the ADMISSION of STUDENTS into the SOCIETY, and to the DEGREE of BARRISTER-AT-LAW.

I.—Every person desirous to be admitted a Student into this Society shall, in order thereto, present at the Under-Treasurer's Office, three clear days at the least before the first day of term, a memorial in the printed form, No. 1, which memorial is to be signed and lodged by the Student himself, and the certificate annexed thereto, signed by a practising Barrister of at least ten years' standing.

II.—Every Student, on presenting such memorial, shall produce a certificate of having paid at the Stamp Office the stamp duty of twenty-five pounds sterling, and also pay to the Under-Treasurer the sum of twenty-one pounds ten shillings and four pence, including five pounds five shillings for admission to the King's Inns Library, and five pounds five shillings for lectures under the recent system of legal education—the balance being the ancient fee for admission into the Society as a Student. Students of the Colleges of the Queen's University who shall elect to attend the courses of lectures in those Colleges, as hereafter provided, are exempted from paying the above sum of five guineas for lectures.

III.—Every Student not a graduate of the University of Dublin, Oxford, Cambridge, Durham, London, or the Queen's University in Ireland, shall keep nine Terms' Commons in the Dining Hall of the Society, and also eight Terms' Commons in one of the Four Inns of Court in London, and shall lodge, with the Under-Treasurer, a certificate of having kept said eight Terms' Commons in one of the said Inns of Court in London, on presenting his memorial to be admitted to the degree of Barrister-at-Law.

IV.—Every such Student, if a graduate of any of the said Universities, is only required to keep six Terms' Commons in the Dining Hall of the King's Inns, and also six Terms' Commons in one of the Inns of Court in London.

V.—Every Student admitted into the Society after the first day of Trinity Term, one thousand eight hundred and fifty, if a graduate of the University of Dublin, Oxford, Cambridge, Durham, or London, or the Queen's University in Ireland, shall, as a condition precedent to being called to the Bar, produce certificates of his having attended two complete

Appendix, No. 1.

courses *at least* of lectures—viz., One complete course of lectures of any two, at his option, of the four Law Professors—namely, the Law Professors of the University of Dublin, and those of the King's Inns, and *at least* five-sixths of the lectures of each session or University term; or if a graduate in arts of the Queen's University in Ireland, shall have the option of producing certificates of having attended two complete courses, at least, of lectures of each of the two Law Professors of any College of the Queen's University, comprising not less than thirty-six lectures, and at least five-sixths of the lectures of each course, and of having passed the examinations in the College to which he belongs, on the subjects of the aforesaid two courses of lectures, provided that the curriculum prescribed by the said two courses of lectures shall embrace all that is contained in the course now prescribed by the Professors of the King's Inns, or as the same may be from time to time varied by any rules of the Benchers.

VI.—Every Student admitted into the Society after the above date (if not a graduate of one of the said Universities) shall, as a condition precedent to being called to the Bar, produce certificates of his having attended four courses of lectures—viz., One course of the lectures of each of the said four Professors, and *at least* five-sixths of the lectures of each session or University term, in such manner, however, that every such Student shall be engaged not less than three years in the study of the law in Ireland, exclusive of the two years necessary for keeping terms in England, in every one of which three years, one complete course of lectures must be kept; any Student who shall produce certificates of his having attended during three years the courses of lectures delivered by the Professors of English Law and of Jurisprudence, in one of the Colleges of the Queen's University, and of his having passed the general examinations in such College on the subjects so lectured on, shall be deemed entitled to such and the same privileges, in respect to his being called to the Bar, as if he had actually attended one course of the lectures of each of the two Law Professors of the University of Dublin, and had been engaged for two years in such attendance; but this rule and the preceding one are not intended to affect the number of Terms' Commons required by the present rules of the Society, to be kept by Students of the King's Inns, prior to being called to the Bar.

VII.—If from illness or other sufficient cause any Student should be prevented from completing any course of lectures necessary towards being called to the Bar, the Legal Education Committee have power to direct what further attendance, if any, shall be sufficient in such case.—Rules as to Legal Education, No. 3.

VIII.—Every such Student, having complied with the foregoing Rules, desiring to be admitted to the degree of Barrister-at-Law, and being of the full age of twenty-one years, shall present a memorial in the printed form No. 2, at the Under-Treasurer's Office, three clear days at the least before the first day of term, said memorial to be signed by the Student himself; the certificate annexed thereto to be signed by a practising Barrister of at least ten years' standing, and the declaration at foot thereof by a Bencher.

IX.—Every such Student so applying for admission to the degree of a Barrister-at-Law shall, on presenting his said memorial, pay to the Under-Treasurer the sum of thirty-two pounds eighteen shillings and nine pence, being the ancient fee payable to the Society thereon, and lodge at the same time a certificate of having paid fifty pounds stamp duty at the Stamp Office; also a certificate of having kept the requisite number of terms from one of the Inns of Court in England; and if a graduate of any of the said Universities, shall also lodge a testimonium from such University of having obtained the degree of Bachelor of Arts or Bachelor of Law therein.

APPENDIX, No. 2.

SCHOLARSHIP EXAMINATIONS, 1865.

LITERARY SCHOLARSHIPS OF THE SECOND YEAR.

GREEK.—*Examiner, Professor D'Arcy W. Thompson,* M.A.

Translate :—

LUCIAN.

ΕΡΜΗΣ. Οὐ σχολή μοι, ὦ πορθμεῦ· ἀπέρχομαι γάρ τι διακονησόμενος τῷ ἄνω Διὶ τῶν ἀνθρωπικῶν· ὁ δὲ ὀξύθυμός τέ ἐστι, καὶ δέδια μὴ βραδύναντά με ὅλον ὑμέτερον ἐάσῃ εἶναι, παραδοὺς τῷ ζόφῳ· ἢ, ὅπερ τὸν Ἥφαιστον πρώην ἐποίησε, ῥίψῃ κἀμὲ τεταγὼς τοῦ ποδὸς ἀπὸ τοῦ θεσπεσίου βηλοῦ, ὡς ὑποσκάζων γέλωτα παρέχοιμι καὶ αὐτὸς οἰνοχοῶν· ΧΑΡΩΝ. Περιόψει οὖν με ἄλλως πλανώμενον ὑπὲρ γῆς, καὶ ταῦτα ἑταῖρος, καὶ ξύμπλους, καὶ συνδιάκτορος ὤν. καὶ μὴν καλῶς εἶχεν, ὦ παῖ Μαίας, ἐκείνων γοῦν σε μεμνῆσθαι, ὅτι μηδεπώποτέ σε ἢ ἀντλεῖν ἐκέλευσα, ἢ πρόσκωπον εἶναι· ἀλλὰ σὺ μὲν ῥέγκεις ἐπὶ τοῦ καταστρώματος ἐκταθείς, ὤμους οὕτω καρτεροὺς ἔχων· ἢ εἴ τινα λάλον νεκρὸν εὕροις, ἐκείνῳ παρ' ὅλον τὸν πλοῦν διαλέγῃ. ἐγὼ δὲ πρεσβύτης ὤν, τὴν δικωπίαν ἕλκων, ἐρέττω μονος. ἀλλὰ πρὸς τοῦ πατρὸς, ὦ φίλτατον Ἑρμίδιον, μὴ καταλίπῃς με· περιήγησαι δὲ τὰ ἐν τῷ βίῳ ἅπαντα, ὥς τι καὶ ἰδὼν ἐπανέλθοιμι· ὡς ἦν με σὺ ἀφῇς, οὐδὲν τῶν τυφλῶν διοίσω· καθάπερ γὰρ ἐκεῖνοι σφάλλονται διολισθαίνοντες ἐν τῷ σκότῳ, οὕτω δὴ κἀγώ σοι πάλιν ἀμβλυώττω πρὸς τὸ φῶς. ἀλλὰ δός, ὦ Κυλλήνιέ, μοι ἐς ἀεὶ μεμνησομένῳ τὴν χάριν.

XENOPHON—*Anabasis*, Book II., chap. vi.

Καὶ γὰρ ὁρᾷν στυγνὸς ἦν καὶ τῇ φωνῇ τραχύς, ἐκόλαζέ τε ἀεὶ ἰσχυρῶς, καὶ ὀργῇ ἐνίοτε, ὡς καὶ αὐτῷ μεταμέλειν ἔσθ' ὅτε. καὶ γνώμῃ δ' ἐκόλαζεν· ἀκολάστου γὰρ στρατεύματος οὐδὲν ἡγεῖτο ὄφελος εἶναι, ἀλλὰ καὶ λέγειν αὐτὸν ἔφασαν ὡς δέοι τὸν στρατιώτην φοβεῖσθαι μᾶλλον τὸν ἄρχοντα ἢ τοὺς πολεμίους, εἰ μέλλοι ἢ φυλακὰς φυλάξειν ἢ φίλων ἀφέξεσθαι ἢ ἀπροφασίστως ἰέναι πρὸς τοὺς πολεμίους. ἐν μὲν οὖν τοῖς δεινοῖς ἤθελον αὐτοῦ ἀκούειν σφόδρα καὶ οὐκ ἄλλον ᾑροῦντο οἱ στρατιῶται· καὶ γὰρ τὸ στυγνὸν τότε φαιδρὸν αὐτοῦ ἐν τοῖς προσώποις ἔφασαν φαίνεσθαι καὶ τὸ χαλεπὸν ἐῤῥωμένον πρὸς τοὺς πολεμίους ἐδόκει, εἶναι, ὥστε σωτήριον καὶ οὐκέτι χαλεπὸν ἐφαίνετο· ὅτε δ' ἔξω τοῦ δεινοῦ γένοιντο καὶ ἐξείη πρὸς ἄλλους ἄρχοντας ἀπιέναι, πολλοὶ αὐτὸν ἀπέλειπον· τὸ γὰρ ἐπίχαρι οὐκ εἶχεν, ἀλλ' ἀεὶ χαλεπὸς ἦν καὶ ὠμός· ὥστε διέκειντο πρὸς αὐτὸν οἱ στρατιῶται ὥσπερ παῖδες πρὸς διδάσκαλον. καὶ γὰρ οὖν φιλίᾳ μὲν καὶ εὐνοίᾳ ἑπομένους οὐδέποτε εἶχεν· οἵτινες δὲ ἢ ὑπὸ πόλεως τεταγμένοι ἢ ὑπὸ τοῦ δεῖσθαι ἢ ἄλλῃ τινὶ ἀνάγκῃ κατεχόμενοι παρείησαν αὐτῷ, σφόδρα πειθομένοις ἐχρῆτο. ἐπεὶ δὲ ἤρξαντο νικᾷν ξὺν αὐτῷ τοὺς πολεμίους, ἤδη μεγάλα ἦν τὰ χρησίμους ποιοῦντα εἶναι τοὺς ξὺν αὐτῷ στρατιώτας· τό τε γὰρ πρὸς τοὺς πολεμίους θαῤῥαλέως ἔχειν παρῆν καὶ τὸ τὴν παρ' ἐκείνου τιμωρίαν φοβεῖσθαι αὐτοὺς εὐτάκτους ἐποίει. τοιοῦτος μὲν δὴ ἄρχων ἦν· ἄρχεσθαι δὲ ὑπὸ ἄλλων οὐ μάλα ἐθέλειν ἐλέγετο. ἦν δὲ ὅτε ἐτελεύτα ἀμφὶ τὰ πεντήκοντα ἔτη.

Appendix, No. 2.

Scholarship Examinations.

EURIPIDES—*Ion.*

Παῦσαι λόγων τῶνδ', εὐτυχεῖν δ' ἐπίστασο·
θέλω γὰρ οὔπέρ σ' εὗρον ἄρξασθαι, τέκνον,
κοινῆς τραπέζης δαῖτα πρὸς κοινὴν πεσών,
θῦσαί θ' ἃ σου πρὶν γενέθλι' οὐκ ἐθύσαμεν.
καὶ νῦν μὲν ὡς δὴ ξένον ἄγων σ' ἐφέστιον
δείπνοισι τέρψω· τῆς δ' Ἀθηναίων χθονὸς
ἄξω θεατὴν δῆθεν, ὡς οὐκ ὄντ' ἐμόν.
καὶ γὰρ γυναῖκα τὴν ἐμὴν οὐ βούλομαι
λυπεῖν ἄτεκνον οὖσαν αὐτὸς εὐτυχῶν.
χρόνῳ δὲ καιρὸν λαμβάνων προσάξομαι
δάμαρτ' ἐᾷν σε σκῆπτρα πατρὶ' ἔχειν χθονός.
Ἴωνα δ' ὀνομάζω σε, τῇ τύχῃ πρέπον,
ὀθούνεκ' ἀδύτων ἐξιόντι μοι θεοῦ
ἴχνος συνῆψας πρῶτος. ἀλλὰ τῶν φίλων
πλήρωμ' ἀθροίσας βουθύτῳ σὺν ἡδονῇ
πρόσειπε, μέλλων Δελφίδ' ἐκλιπεῖν πόλιν.
ὑμῖν δὲ σιγᾶν, δμωΐδες, λέγω τάδε,
ἢ θάνατον εἰπούσαισι πρὸς δάμαρτ' ἐμήν.

HOMER—*Iliad*, Book VI.

Οὐδὲ Πάρις δήθυνεν ἐν ὑψηλοῖσι δόμοισιν,
ἀλλ' ὅγ' ἐπεὶ κατέδυ κλυτὰ τεύχεα, ποικίλα χαλκῷ,
σεύατ' ἔπειτ' ἀνὰ ἄστυ, ποσὶ κραιπνοῖσι πεποιθώς.
ὡς δ' ὅτε τις στατὸς ἵππος, ἀκοστήσας ἐπὶ φάτνῃ,
δεσμὸν ἀπορρήξας θείῃ πεδίοιο κροαίνων
εἰωθὼς λούεσθαι ἐϋρρεῖος ποταμοῖο,
κυδιόων· ὑψοῦ δὲ κάρη ἔχει, ἀμφὶ δὲ χαῖται
ὤμοις ἀΐσσονται· ὁ δ' ἀγλαΐηφι πεποιθώς,
ῥίμφα ἑ γοῦνα φέρει μετά τ' ἤθεα καὶ νομὸν ἵππων·
ὣς υἱὸς Πριάμοιο Πάρις κατὰ Περγάμου ἄκρης,
τεύχεσι παμφαίνων ὥστ' ἠλέκτωρ, ἐβεβήκει
καγχαλόων, ταχέες δὲ πόδες φέρον· αἶψα δ' ἔπειτα
Ἕκτορα δῖον ἔτετμεν ἀδελφεὸν, εὖτ' ἄρ' ἔμελλεν
στρέψεσθ' ἐκ χώρης, ὅθι ᾗ ὁάριζε γυναικί.

GREEK COMPOSITION.

Fellow soldiers, it is obvious that Cyrus and ourselves are now quits. We are no longer his soldiers, seeing that we are no longer for marching with him; and he is no longer our paymaster. I am, however, aware that he looks upon himself as having been ill-used at our hands. Consequently, although he is sending for me, I am not disposed to go to him; chiefly from a sense of shame, as I am conscious of having disappointed him; and, furthermore, from the fear of his apprehending me, and visiting on my head the ill-treatment to which he considers himself as having been subjected by me. I consider, then, that it is now no time to go to sleep, or show carelessness, but to deliberate as to what is best to be done under present circumstances. And if we stay here, I

think we should deliberate how we may stay here with the greatest security; and, if we are fully determined on departing, how with the greatest security we may depart, and how we are to get provisions; for without these latter, there is no use in either general or private.

Appendix, No. 2.

Scholarship Examinations.

LATIN.—*Examiner, Professor Bagley,* M.A.

Translate, explaining any allusions that seem to require explanation:—

CICERO—*To Atticus*, Book II., letter xvii.

Prorsus, ut scribis, ita sentio. Turbat Sampsiceramus. Nihil est quod non timendum sit, *ὁμολογουμένως τυραννίδα συσκευάζεται.* Quid enim ista repentina adfinitatis coniunctio, quid ager Campanus, quid effusio pecuniae significant? Quae si essent extrema, tamen esset nimium mali, sed ea natura rei est, ut haec extrema esse non possint. Quid enim eos haec ipsa per se delectare possunt? Numquam huc venissent, nisi ad res alias pestiferas aditus sibi compararent. Di immortales! Verum, ut scribis, haec in Arpinati a. d. VI. circiter Id. Mai. non deflebimus, ne et opera et oleum philologiae nostrae perierit, sed conferemus tranquillo animo. Neque tam me *εὐελπιστία* consolatur, ut antea, quam *ἀδιαφορία*, qua nulla in re tam utor quam in hac civili et publica. Quin etiam, quod est subinane in nobis et non *ἀφιλόδοξον*—bellum est enim sua vitia nosse —adficitur quadam delectatione. Solebat enim me pungere, ne Sampsicerami merita in patriam ad annos DC. maiora viderentur quam nostra: hac quidem cura certe iam vacuum est. Iacet enim ille sic, ut *πτῶσις* Curiana stare videatur. Sed haec coram. Tu tamen videris mihi Romae fore ad nostrum adventum: quod sane facile patiar, si tuo commodo fieri possit. Sin, ut scribis, ita venies, velim e Theophane expiscere quonam in me animo sit Arabarches. Quaeres scilicet, ut soles, *κατὰ τὸ κηδεμονικὸν* et ad me ab eo quasi *ὑποθήκας* adferes, quem ad modum me geram. Aliquid ex eius sermone poterimus *περὶ τῶν ὅλων* suspicari.

Pro Milone, ch. xviii.

Videte, iudices, quantae res his testimoniis sint confectae. Primum certe liberatur Milo non eo consilio profectus esse, ut insidiaretur in via Clodio: quippe, si ille obvius ei futurus omnino non erat. Deinde—non enim video cur non meum quoque agam negocium—scitis, iudices, fuisse qui in hac rogatione suadenda dicerent Milonis manu caedem esse factam, consilio vero maioris alicuius. Me videlicet latronem ac sicarium abiecti homines et perditi describebant. Iacent suis testibus ii, qui Clodium negant eo die Romam, nisi de Cyro audisset, fuisse rediturum. Respiravi, liberatus sum: non vereor ne, quod ne suspicari quidem potuerim, videar id cogitasse. Nunc persequar caetera. Nam occurrit illud: Igitur ne Clodius quidem de insidiis cogitavit, quoniam fuit in Albano mansurus. Si quidem exiturus ad caedem e villa non fuisset. Video enim illum, qui dicatur de Cyri morte nunciasse, non id nunciasse, sed Milonem appropinquare. Nam quid de Cyro nunciaret, quem Clodius Roma proficiscens reliquerat morientem? Una fui, testamentum Cyri simul obsignavi cum Clodio: testamentum autem palam fecerat et illum heredem et me scripserat. Quem pridie hora tertia animam efflantem reliquisset, eum mortuum postridie hora decima denique ei nunciabatur?

Appendix, No. 2.

Scholarship Examinations.

Translate into Latin prose :—

Galba was hurried to and fro with every movement of the surging crowd; the halls and temples all around were thronged with spectators of this dismal sight. Not a voice was heard from the people or even from the rabble. Everywhere were terror-stricken countenances, and ears turned to catch every sound. It was a scene neither of agitation nor of repose, but there reigned the silence of profound alarm and profound indignation. Otho, however, was told they were arming the mob. He ordered his men to hurry on at full speed, and anticipate the danger. Then did these Roman soldiers rush forward like men who had to drive some Vologeses or Pacorus from the ancestral throne of the Arsacidæ, not as though they were hastening to murder their aged and defenceless Emperor. In all the terror of their arms, and at the full speed of their horses, they burst into the Forum, thrusting aside the crowd, and trampling on the senate. Neither the sight of the Capitol, nor the sanctity of the overhanging temples, nor the thought of rulers past or future, could deter them from committing a crime, which any one succeeding to power must avenge.

Translate :—

(A).—Livy, XXII., 28.

Duplex inde Hannibali gaudium fuit—neque enim quicquam eorum quae apud hostes agerentur, eum fallebat et perfugis multa indicantibus et per suos explorantem :—nam et liberam Minucii temeritatem se suo modo captaturum et sollertiae Fabii dimidium virium decessisse. Tumulus erat inter castra Minucii et Poenorum, quem qui occupasset, haud dubie iniquiorem erat hosti locum facturus. Eum non tam capere sine certamine volebat Hannibal, quamquam id operae pretium erat, quam causam certaminis cum Minucio, quem semper occursurum ad obsistendum satis sciebat, contrahere. Ager omnis medius erat prima specie inutilis insidiatori, quia non modo silvestre quicquam sed ne vepribus quidem vestitum habebat; re ipsa natus tegendis insidiis eo magis, quod in nuda valle nulla talis fraus timeri poterat. Et erant in amfractibus cavae rupes, ut quaedam earum ducenos armatos possent capere. In has latebras, quot quemque locum apte insidere poterant, quinque milia conduntur peditum equitumque. Necubi tamen aut motus alicuius temere egressi aut fulgor armorum fraudem in valle tam aperta detegeret, missis paucis prima luce ad capiendum quem ante diximus tumulum avertit oculos hostium. Primo statim conspectu contempta paucitas, ac sibi quisque deposcere pellendos inde hostis. Ad locum capiendum dux ipse inter stolidissimos ferocissimosque ad arma vocat, et vanis animis et minis increpat hostem. Principio levem armaturam dimittit; deinde conferto agmine mittit equites; postremo, cum hostibus quoque subsidia mitti videret, instructis legionibus procedit. Et Hannibal laborantibus suis alia atque alia ut crescente certamine mittens auxilia peditum equitumque iam iustam expleverat aciem, ac totis utrimque viribus certatur. Prima levis armatura Romanorum, praeoccupatum inferiore loco succedens tumulum, pulsa detrusaque terrorem in succedentem intulit equitem, et ad signa legionum refugit. Peditum acies inter perculsos impavida sola erat, videbaturque, si iusta aut si recta pugna esset, haudquaquam impar futura : tantum animorum fecerat prospere ante paucos dies res gesta. Sed exorti repente insidiatores eum tumultum terroremque in latera utrimque ab tergoque incursantes fecerunt, ut nec animus ad pugnam neque ad fugam spes cuiquam superesset.

(B).—TERENCE—*Adelphi*, Act V., Sc. 1.

Syrus—Demea.

Sy. Edepol, Syrisce, te curasti molliter,
Lauteque munus administrasti tuom.
Abi. Sed postquam intus sum omnium rerum satur,
Prodeambulare huc lubitumst. *De.* Illud sis uide
Exemplum disciplinae. *Sy.* Ecce autem hic adest
Senex noster. Quid fit? Quid tu es tristis? *De.* Oh scelus.
Sy. Ohe iam: tu verba fundis hic, sapientia?
De. Tu si meus esses. *Sy.* Dis quidem esses, Demea,
Ac tuam rem constabilisses. *De.* Exemplo omnibus
Curarem ut esses. *Sy.* Quamobrem? Quid feci? *De.* Rogas?
In ipsa turba atque in peccato maxumo,
Quod uix sedatum satis est, potasti, scelus,
Quasi re bene gesta. *Sy.* Sane nollem huc exitum.

(C).—VIRGIL—*Georgics*, IV., 251–280.

Si vero, quoniam casus apibus quoque nostros
Vita tulit, tristi languebunt corpora morbo,
Quod iam non dubiis poteris cognoscere signis—
Continuo est aegris alius color; horrida vultum
Deformat macies; tum corpora luce carentum
Exportant tectis et tristia funera ducunt;
Aut illae pedibus connexae ad limina pendent,
Aut intus clausis cunctantur in aedibus, omnes
Ignavaeque fame et contracto frigore pigrae:
Tum sonus auditur gravior, tractimque susurrant,
Frigidus ut quondam silvis immurmurat Auster,
Ut mare sollicitum stridit refluentibus undis,
Aestuat ut clausis rapidus fornacibus ignis;—
Hic iam galbaneos suadebo incendere odores,
Melaque arundineis inferre canalibus, ultro
Hortantem et fessas ad pabula nota vocantem.
Proderit et tunsum gallae admiscere saporem
Arentesque rosas, aut igni pinguia multo
Defruta, vel Psythia passos de vite racemos
Cecropiumque thymum et grave olentia centaurea.
Est etiam flos in pratis, cui nomen amello
Fecere agricolae, facilis quaerentibus herba—
Namque uno ingentem tollit de cespite silvam,
Aureus ipse, sed in foliis, quae plurima circum
Funduntur, violae sublucet purpura nigrae;
[Saepe deûm nexis ornatae torquibus arae;]
Asper in ore sapor; tonsis in vallibus illum
Pastores et curva legunt prope flumina Mellae:—
Huius odorato radices incoque Baccho,
Pabulaque in foribus plenis appone canistris.

1. Relate the chief events of the second Punic war, as far as they are contained in the twenty-first and twenty-second books of Livy; and give the dates of its commencement and ending. Give some account also of the author whom he mostly follows in his account of it.

2. Trace the route of Hannibal from the time he left the Ebro until he arrived at the foot of the Alps.

Appendix. No. 2. Scholarship Examinations.

3. Conjugate the verbs from which the following participles come :— *conferto, perculsos, connexæ, fessas, tunsum, passos, tonsis.*

4. What is there peculiar in the construction of the following sentences of (A) ?—

"In has latebras, quot quemque locum apte insidere poterant, quinque milia conduntur peditum equitumque."

"Duplex inde Hannibali gaudium fuit : neque enim quidquam eorum, quae apud hostes agerentur, eum fallebat, et perfugis multa indicantibus et per suos explorantem, nam et liberam Minucii temeritatem se suo modo captaturum, et sollertiae Fabii dimidium virium decessisse."

"Ager omnis medius erat prima specie inutilis insidiatori, quia non modo silvestre quidquam, sed ne vepribus quidem vestitum habebat."

Explain the expressions "justam expleverat aciem," and "si justa aut si recta pugna esset."

5. Explain the derivations of *solertia, dimidium, tumulus, iniquus, amfractus, principium, legio, defrutum.*

ENGLISH.—*Examiner, Professor Moffett,* LL.D.

1. Give a historical sketch of the origin and progress of the science of language, noticing its chief results, as contained in Wiseman's first Lecture.

2. How does Wiseman characterize the genius of Leibnitz?

3. Classify the existing European languages, with their several subdivisions : describe the probable order of their introduction, and their present relative geographical positions.

4. Define the limits of the Anglo-Saxon period : enumerate in chronological order the most eminent writers of the time, ecclesiastical and secular ; and mention their principal works both in the vernacular and the Latin tongues.

5. Who are our oldest historians of the Norman Conquest?

6. Enumerate the principal literary works in the vernacular tongue that have come down to us from the interval between the Conquest and Chaucer, with such an account as you can give of any of them.

7. Give an account of the rise and progress of Schools and Universities on the Continent and in England.

8. In what language (or languages) was Magna Charta drawn up? In what language were the earliest Law treatises written? Name them.

9. What are the earliest examples we have of the employment of the English language in the Parliamentary proceedings?

10. Sketch the history of the Early English metrical Romances.

SCIENCE SCHOLARSHIPS OF THE SECOND YEAR.

MATHEMATICS.—*Examiner, Professor Allman,* LL.D.

1. Construct a triangle, being given the base, the difference of the base angles, and the sum or the difference of the sides.

2. Given the ratio of the tangents of two angles ; when is the difference of the angles a maximum?

3. Find, in terms of the sides, the area of a quadrilateral which can be inscribed in a circle.

4. At a given point in a given plane erect a perpendicular to the plane.

5. The area of a spherical triangle is proportional to the excess of the sum of its three angles above two right angles.

6. In a spherical triangle, prove the formulæ—

$$\tan\tfrac{1}{2}(a+b)=\tan\tfrac{1}{2}c\,\frac{\cos\frac{1}{2}(A-B)}{\cos\frac{1}{2}(A+B)};$$

$$\tan\tfrac{1}{2}(a-b)=\tan\tfrac{1}{2}c\,\frac{\sin\frac{1}{2}(A-B)}{\sin\frac{1}{2}(A+B)}.$$

7. Find the equation to rectangular axes of a straight line passing through a given point, and perpendicular to a given straight line.

8. Find the equation to the tangent at the point x' y' to a given circle.

9. Given the vertical angle of a triangle and the sum of the reciprocals of the sides, the base will always pass through a fixed point.

10. Find the sum of n terms of the series—

$$a,\ (a+b)r,\ (a+2b)r^2,\ (a+3b)r^3,\ \ldots\ .$$

11. The roots of an equation are a, b, c, ... find—

(1) $\dfrac{1}{a}+\dfrac{1}{b}+\dfrac{1}{c}+\ldots\ .$

(2) $\dfrac{a}{b}+\dfrac{b}{a}+\dfrac{a}{c}+\dfrac{c}{a}+\ldots\ .$

12. Every recurring equation of an even number of dimensions may be reduced to an equation of half that number of dimensions. Solve the equation—

$$x^4-5x^3+6x^2-5x+1=0.$$

---

1. If p, q, r be the lengths of the lines drawn from the angles of a triangle bisecting them, and terminated by the opposite sides, prove that

$$\frac{\cos\frac{A}{2}}{p}+\frac{\cos\frac{B}{2}}{q}+\frac{\cos\frac{C}{2}}{r}=\frac{1}{a}+\frac{1}{b}+\frac{1}{c}.$$

2. The surface of a sphere is equal to four times the area of one of its great circles.

3. If θ, ϕ, ψ, denote the distances from the angles A, B, C, respectively, of the points of intersection of arcs bisecting the angles of the spherical triangle ABC, prove that

$$\cos\theta\sin(b-c)+\cos\phi\sin(c-a)+\cos\psi\sin(a-b)=0.$$

4. Given $\tan x=k\tan y$; show that

$$x=y-m\sin 2y+\frac{m^2}{2}\sin 4y-\frac{m^3}{3}\sin 6y\ \ldots\ \text{where } m=\frac{1-k}{1+k}.$$

5. Find the equation of the chord of intersection of two circles. If several circles pass through two fixed points, the chords of intersection with a fixed circle will pass through a fixed point.

6. Find the equation of a circle referred to two tangents as axes of co-ordinates.

7. If a_1, a_2, a_3, ... a_n are the roots of an equation—

$$x^n+p_1x^{n-1}+p_2x^{n-2}+\ldots\ldots+p_{n-1}x+p_n=0;$$

show that—

$$(1-p_2+p_4-\ldots\ldots)^2+(p_1-p_3+p_5-\ldots\ldots)^2=$$
$$(1+a_1^2)\,(1+a_2)^2\,(1+a_3)^2\ldots\ldots(1+a_n)^2.$$

8. Find in terms of m and a the roots of the equation—

$$x^4+pax^3+(m^2+m)\,a^2x^2+qa^3x+a^4=0,$$

which are in geometrical progression; and determine p and q in terms of m and a.

Appendix, No. 2.

Scholarship Examinations.

Literary Scholarships of the First Year.

Greek.—*Examiner, Professor D'Arcy W. Thompson,* M.A.

Translate :—

Iliad, IV., 422–445.

Ὡς δ' ὅτ' ἐν αἰγιαλῷ πολυηχεῖ κῦμα θαλάσσης
ὄρνυτ' ἐπασσύτερον Ζεφύρου ὕπο κινήσαντος·
πόντῳ μὲν τὰ πρῶτα κορύσσεται, αὐτὰρ ἔπειτα
χέρσῳ ῥηγνύμενον μεγάλα βρέμει, ἀμφὶ δέ τ' ἄκρας
κυρτὸν ἐὸν κορυφοῦται, ἀποπτύει δ' ἁλὸς ἀχνην·
ὡς τότ' ἐπασσύτεραι Δαναῶν κίνυντο φάλαγγες
νωλεμέως πόλεμόνδε. κέλευε δὲ οἷσιν ἕκαστος
ἡγεμόνων· οἱ δ' ἄλλοι ἀκὴν ἴσαν—οὐδέ κε φαίης
τόσσον λαὸν ἕπεσθαι ἔχοντ' ἐν στήθεσιν αὐδήν—
σιγῇ δειδιότες σημάντορας· ἀμφὶ δὲ πᾶσιν
τεύχεα ποικίλ' ἔλαμπε, τὰ εἱμένοι ἐστιχόωντο.
Τρῶες δ', ὥστ' ὄϊες πολυπάμονος ἀνδρὸς ἐν αὐλῇ
μυρίαι ἑστήκασιν ἀμελγόμεναι γάλα λευκὸν,
ἀζηχὲς μεμακυῖαι, ἀκούουσαι ὅπα ἀρνῶν,
ὣς Τρώων ἀλαλητὸς ἀνὰ στρατὸν εὐρὺν ὀρώρει·
οὐ γὰρ πάντων ἦεν ὁμὸς θρόος οὐδ' ἴα γῆρυς,
ἀλλὰ γλῶσσ' ἐμέμικτο, πολύκλητοι δ' ἔσαν ἄνδρες.
ὦρσε δὲ τοὺς μὲν Ἄρης, τοὺς δὲ γλαυκῶπις Ἀθήνη
Δεῖμός τ' ἠδὲ Φόβος καὶ Ἔρις, ἄμοτον μεμανῖα,
Ἄρεος ἀνδροφόνοιο κασιγνήτη ἑτάρη τε,
ἥτ' ὀλίγη μὲν πρῶτα κορύσσεται, αὐτὰρ ἔπειτα
οὐρανῷ ἐστήριξε κάρη καὶ ἐπὶ χθονὶ βαίνει.
ἥ σφιν καὶ τότε νεῖκος ὁμοῖον ἔμβαλε μέσσῳ
ἐρχομένη καθ' ὅμιλον, ὀφέλλουσα στόνον ἀνδρῶν.

Parse δειδιότες, εἱμένοι; and give the derivation of σημάντορας and ἄμοτον.

Translate :—

Euripides—*Ion,* 566–584.

ΧΟΡΟΣ. Κοιναὶ μὲν ἡμῖν δωμάτων εὐπραξίαι·
ὅμως δὲ καὶ δέσποιναν εἰς τέκν' εὐτυχεῖν
ἐβουλόμην ἂν τούς τ' Ἐρεχθέως δόμους.

ΞΟΥΘΟΣ. Ὦ τέκνον, εἰς μὲν σὴν ἀνεύρεσιν θεὸς
ὀρθῶς ἔκρανε, καὶ συνῆψ' ἐμοί τε σέ,
σύ τ' αὖ τὰ φίλταθ' εὗρες οὐκ εἰδὼς πάρος.
ἃ δ' ἦξας ὀρθῶς, τοῦτο κἄμ' ἔχει πόθος,
ὅπως σύ τ', ὦ παῖ, μητέρ' εὑρήσεις σέθεν,
ἐγώ θ' ὁποίας μοι γυναικὸς ἐξέφυς.
χρόνῳ δὲ δόντες ταῦτ' ἴσως εὕροιμεν ἄν.
ἀλλ' ἐκλιπὼν θεοῦ δάπεδ' ἀλητείαν τε σὴν

εἰς τὰς Ἀθήνας στεῖχε κοινόφρων πατρί,
οὗ σ' ὄλβιον μὲν σκῆπτρον ἀναμένει πατρός,
πολὺς δὲ πλοῦτος· οὐδὲ θάτερον νοσῶν
δυοῖν κεκλήσει δυσγενὴς πένης θ' ἅμα,
ἀλλ' εὐγενής τε καὶ πολυκτήμων βίου.
σιγᾷς; τί πρὸς γὴν ὄμμα σὸν βαλὼν ἔχεις,
εἰς φροντίδας δ' ἀπῆλθες, ἐκ δὲ χαρμονῆς
πάλιν μεταστὰς δεῖμα προσβάλλεις πατρί;

EURIPIDES—*Ion*, 1048–1060.

Εἰνοδία θύγατερ Δάματρος, ἃ τῶν
νυκτιπόλων ἐφόδων ἀνάσσεις
καὶ μεθαμερίων, ὅδωσον δυσθανάτων
κρατήρων πληρώματ', ἐφ' οἷσι πέμπει
πότνια πότνι' ἐμὰ χθονίας
Γοργοῦς λαιμοτόμων ἀπὸ σταλαγμῶν
τῷ τῶν Ἐρεχθεϊδᾶν
δόμων ἐφαπτομένῳ·
μηδέ ποτ' ἄλλος ἄλλων ἀπ' οἴκων
πόλεως ἀνάσσοι
πλὴν τῶν εὐγενετᾶν Ἐρεχθειδᾶν.

Parse ἧξας; derive ἀλητεία; and scan the eleventh line of the iambic passage.

Translate :—

XENOPHON—*Anabasis.*

Εἰ μὲν οὖν ἄλλος τις βέλτιον ὁρᾷ, ἄλλως ἐχέτω· εἰ δὲ μή, Χειρίσοφος μεν ἡγείσθω, ἐπειδὴ καὶ Λακεδαιμόνιός ἐστι· τῶν δὲ πλευρῶν ἑκατέρων δύο τῶν πρεσβυτάτων στρατηγὼ ἐπιμελείσθων· ὀπισθοφυλακῶμεν δ' ἡμεῖς οἱ νεώτατοι ἐγώ τε καὶ Τιμασίων τὸ νῦν εἶναι· τὸ δὲ λοιπόν, πειρώμενοι ταύτης τῆς τάξεως βουλευσόμεθα ὅ τι ἂν ἀεὶ κράτιστον δοκῇ εἶναι. εἰ δέ τις ἄλλο βέλτιον ὁρᾷ, λεξάτω. ἐπεὶ δὲ οὐδεὶς ἀντέλεγεν, εἶπεν· ὅτῳ δοκεῖ ταῦτα, ἀνατεινάτω τὴν χεῖρα. ἔδοξε ταῦτα. νῦν τοίνυν, ἔφη, ἀπιόντας ποιεῖν δεῖ τὰ δεδογμένα· καὶ ὅστις τε ὑμῶν τοὺς οἰκείους ἐπιθυμεῖ ἰδεῖν, μεμνήσθω ἀνὴρ ἀγαθὸς εἶναι· οὐ γάρ ἐστιν ἄλλως τούτου τυχεῖν· ὅστις τε ζῆν ἐπιθυμεῖ, πειράσθω νικᾷν· τῶν μὲν γὰρ νικώντων τὸ κατακαίνειν, τῶν δὲ ἡττωμένων τὸ ἀποθνήσκειν ἐστί· καὶ εἴ τις δὲ χρημάτων ἐπιθυμεῖ, κρατεῖν πειράσθω· τῶν γὰρ νικώντων ἐστὶ καὶ τὰ ἑαυτῶν σώζειν καὶ τὰ τῶν ἡττωμένων λαμβάνειν.

LUCIAN—*Charon.*

Καὶ μὴν οὐδ' εἰπεῖν ἔχοις ἂν κατὰ τὴν ἀξίαν, ὅπως ἐστὶ καταγέλαστα, ὦ Χάρων· καὶ μάλιστα αἱ ἄγαν σπουδαὶ αὐτῶν, καὶ τὸ μεταξὺ τῶν ἐλπίδων οἴχεσθαι, ἀναρπάστους γιγνομένους ὑπὸ τοῦ βελτίστου θανάτου. ἄγγελοι δὲ αὐτοῦ, καὶ ὑπηρέται μάλα πολλοί, ὡς ὁρᾷς, ἠίαλοι, καὶ πυρετοί, καὶ φθόαι, καὶ περιπνευμονίαι, καὶ ξίφη, καὶ ληστήρια, καὶ κώνεια, καὶ δικασταί, καὶ τύραννοι· καὶ τούτων οὐδὲν ὅλως αὐτοὺς εἰσέρχεται, ἐστ' ἂν εὖ πράττωσιν·

Appendix, No. 2.

Scholarship Examinations.

ὅταν δὲ σφαλῶσι, πολὺ τὸ ὀττοτοῖ, καὶ αἲ αἲ, καὶ ὦ μοι μοι. εἰ δ' εὐθὺς ἐξ ἀρχῆς ἐνενόουν, ὅτι θνητοί τέ εἰσιν αὐτοὶ, καὶ ὀλίγον τοῦτον χρόνον ἐπιδημήσαντες τῷ βίῳ ἀπίασιν, ὥσπερ ἐξ ὀνείρατος, πάντα ὑπὲρ γῆς ἀφέντες, ἔζων τε ἂν σωφρονέστερον, καὶ ἧττον ἠνιῶντο ἀποθανόντες. νῦν δὲ ἐς ἀεὶ ἐλπίσαντες χρῆσθαι τοῖς παροῦσιν, ἐπειδὰν ἐπιστὰς ὁ ὑπηρέτης καλῇ, καὶ ἀπάγῃ, πεδήσας τῷ πυρετῷ ἢ τῇ φθόῃ, ἀγανακτοῦσι πρὸς τὴν ἀγωγὴν, οὗ ποτε προσδοκήσαντες ἀποσπασθήσεσθαι αὐτῶν. ἢ τί γὰρ οὐκ ἂν ποιήσειεν ἐκεῖνος ὁ τὴν οἰκίαν σπουδῇ οἰκοδομούμενος, καὶ τοὺς ἐργάτας ἐπισπέρχων, εἰ μάθοι, ὅτι ἡ μὲν ἔξει τέλος αὐτῷ· ὅ δὲ, ἄρτι ἐπιθεὶς τὸν ὄροφον, ἀπίοι, τῷ κληρονόμῳ καταλιπὼν ἀπολαύειν αὐτῆς, αὐτὸς μηδὲ δειπνήσας ἄθλιος ἐν αὐτῇ;

Parse ἀπίασιν, ἀποσπασθήσεσθαι, ἠνιῶντο.

GREEK COMPOSITION.

1. I said that in the presence of your father.
2. I should not like to say so in the presence of your father.
3. I should not have said that, had you been present at the time.
4. Would you be disposed to do that, if you were all the time aware that the man had spoken so ill of you?
5. "Did he really say so?" "He did, indeed." "Then, believe me, my good sir, if he said it, he meant it."
6. Fellow-soldiers, hear what I take to be requisite. It is obvious that we must march to where we are to get provisions. Now I am informed that there are some fine villages not more than twenty stadia distant. Now; as curs run after men that pass them by; and bite them, if they can; but run away from those that run after them; so, I should not be surprised if in just such a way these fellows should be for following us.

LATIN.—*Examiner, Professor Bagley,* M.A.

Translate:—

(A).—VIRGIL—*Æneid,* VI., 295–316.

Hinc via, Tartarei quae fert Acherontis ad undas.
Turbidus hic coeno vastaque voragine gurges
Aestuat atque omnem Cocyto eructat arenam.
Portitor has horrendus aquas et flumina servat
Terribili squalore Charon, cui plurima mento
Canities inculta iacet, stant lumina flamma,
Sordidus ex humeris nodo dependet amictus;
Ipse ratem conto subigit velisque ministrat,
Et ferruginea subvectat corpora cymba,
Iam senior, sed cruda deo viridisque senectus.
Huc omnis turba ad ripas effusa ruebat.
Matres atque viri, defunctaque corpora vita
Magnanimûm heroum, pueri innuptaeque puellae,
Impositique rogis iuvenes ante ora parentum:
Quam multa in silvis auctumni frigore primo
Lapsa cadunt folia, aut ad terram gurgite ab alto
Quam multae glomerantur aves, ubi frigidus annus
Trans pontum fugat et terris immittit apricis.
Stabant orantes primi transmittere cursum,
Tendebantque manus ripae ulterioris amore;
Navita sed tristis nunc hos, nunc accipit illos,
Ast alios longe submotos arcet arena.

(B).—HORACE—*Odes*, Book I., xxxiii.

Albi, ne doleas plus nimio memor
Immitis Glycerae, neu miserabiles
Decantes elegos, cur tibi iunior
Laesa praeniteat fide.

Insignem tenui fronte Lycorida
Cyri torret amor, Cyrus in asperam
Declinat Pholoën; sed prius Appulis
Iungentur capreae lupis,

Quam turpi Pholoë peccet adultero.
Sic visum Veneri, cui placet impares
Formas atque animos sub iuga ahenea
Saevo mittere cum ioco.

Ipsum me, melior cum peteret Venus,
Grata detinuit compede Myrtale
Libertina, fretis acrior Hadriae
Curvantis Calabros sinus.

(C).—HORACE—*Epistles*, Book II., Ep. i., 232 *ad fin.*

Gratus Alexandro regi Magno fuit ille
Choerilus, incultis qui versibus et male natis
Retulit acceptos, regale nomisma, Philippos.
Sed veluti tractata notam labemque remittunt
Atramenta, fere scriptores carmine foedo
Splendida facta linunt. Idem rex ille, poëma
Qui tam ridiculum tam care prodigus emit,
Edicto vetuit, ne quis se praeter Apellem
Pingeret, aut alius Lysippo duceret aera
Fortis Alexandri vultum simulantia. Quodsi
Iudicium subtile videndis artibus illud
Ad libros et ad haec Musarum dona vocares:
Boeotum in crasso iurares aëre natum.
At neque dedecorant tua de se iudicia atque
Munera, quae multa dantis cum laude tulerunt
Dilecti tibi Virgilius Variusque poëtae,
Nec magis expressi vultus per ahenea signa,
Quam per vatis opus mores animique virorum
Clarorum apparent. Nec sermones ego mallem
Repentes per humum, quam res componere gestas,
Terrarumque situs et flumina dicere et arces
Montibus impositas et barbara regna, tuisque
Auspiciis totum confecta duella per orbem,
Claustraque custodem pacis cohibentia Ianum,
Et formidatam Parthis te principe Romam,
Si quantum cuperem, possem quoque; sed neque parvum
Carmen maiestas recipit tua, nec meus audet
Rem tentare pudor, quam vires ferre recusent.
Sedulitas autem, stulte quem diligit, urget,
Praecipue cum se numeris commendat et arte:
Discit enim citius meminitque libentius illud,
Quod quis deridet, quam quod probat et veneratur.
Nil moror officium, quod me gravat, ac neque ficto
In pejus vultu proponi cereus usquam
Nec prave factis decorari versibus opto,

Appendix, No. 2.

Scholarship Examinations.

Ne rubeam pingui donatus munere, et una
Cum scriptore meo capsa porrectus aperta
Deferar in vicum vendentem thus et odores
Et piper et quidquid chartis amicitur ineptis. 270

1. Explain the syntax of the following words:—In (A), *Cocyto*, v. 297; *velis*, v. 302; *vita*, v. 306; in (C), *versibus*, v. 233, and *Lysippo*, v. 240. Explain also the use of *cur* in (B), v. 3; and quote another passage from Horace in which it is similarly used.

2. What are the two explanations given of the expression "multa dantis cum laude" in (C)? What is the usual meaning of the word *portitor*, and how do you connect it etymologically with the meaning which the word has in (A)?

3. Decline the nouns *gurges*, *canities*, *heros*, *adulter*, *compes*, *princeps*; and conjugate the verbs *lino*, *veto*, *pingo*, *audeo*, *amicio*, *subigo*, *tendo*, *torreo*.

4. Give the derivations of the following words, explaining the connexion between the root and the ordinary meaning wherever you think it requisite:—*Vorago*, *arena*, *nomisma*, *subtilis*, *bellum*, *sedulus*, *ineptus*, *officium*, *adulter*, *biceps*, *princeps*, *auctumnus*.

Translate:—

LIVY, III., xxii.

Consules creati Q. Fabius Vibulanus tertium et L. Cornelius Maluginensis. Census actus eo anno. Lustrum propter Capitolium captum, consulem occisum, condi religiosum fuit. Quinto Fabio L. Cornelio consulibus principio anni statim res turbulentae. Instigabant plebem tribuni. Bellum ingens a Volscis et Aequis Latini atque Hernici nuntiabant: iam Antii Volscorum legiones esse. Et ipsam coloniam ingens metus erat defecturam; aegreque impetratum a tribunis, ut bellum praeverti sinerent. Consules inde partiti provincias: Fabio, ut legiones Antium duceret, datum, Cornelius ut Romae praesidio esset, ne qua pars hostium, qui Aequis mos erat, ad populandum veniret. Hernici et Latini iussi milites dare ex foedere; duaeque partes sociorum in exercitu, tertia civium fuit. Postquam ad diem praestitutum venerunt socii, consul extra portam Capenam castra locat. Inde lustrato exercitu Antium profectus haud procul oppido stativisque hostium consedit. Ubi cum Volsci, quia nondum ab Aequis venisset exercitus, dimicare non ausi, quem ad modum quieti vallo se tutarentur, pararent, postero die Fabius non permixtam unam sociorum civiumque sed trium populorum tres separatim acies circa vallum hostium instruxit. Ipse erat medius cum legionibus Romanis. Inde signum observare iussit, ut pariter et socii rem inciperent referrentque pedem, si receptui cecinisset. Equites item suae cuiquae parti post principia collocat. Ita trifariam adortus castra circumvenit, et cum undique instaret, non sustinentes impetum Volscos vallo deturbat. Transgressus inde munitiones pavidam turbam inclinatamque in partem unam castris expellit. Inde effuse fugientes eques, cui superare vallum haud facile fuerat, cum ad id spectator pugnae adstitisset, libero campo adeptus parte victoriae fruitur territos caedendo. Magna et in castris et extra munimenta caedis fugientium fuit, sed praeda maior, quia vix arma secum efferre hostis potuit. Deletusque exercitus foret, ni fugientis silvae texissent.

SALLUST—*Jugurtha*, xliv.

Sed ubi in Africam venit, exercitus ei traditur a Sp. Albino Procunsule iners, imbellis, neque periculi neque laboris patiens, lingua quam manu promptior, praedator ex sociis et ipse praeda hostium, sine imperio et

modestia habitus. Ita imperatori novo plus ex malis moribus sollicitudinis, quam ex copia militum auxilii aut bonae spei accedebat. Statuit tamen Metellus, quamquam et aestivorum tempus comitiorum mora imminuerat, et exspectatione eventus civium animos intentos putabat, non prius bellum attingere quam maiorum disciplina milites laborare coegisset. Nam Albinus, Auli fratris exercitusque clade perculsus postquam decreverat non egredi provincia, quantum temporis aestivorum in imperio fuit plerumque milites stativis castris habebat, nisi quum odos aut pabuli egestas locum mutare subegerat. Sed neque more militari vigiliae deducebantur, uti cuique lubebat ab signis aberat. Lixae permixti cum militibus die noctuque vagabantur, et palantes agros vastare, villas expugnare, pecoris et mancipiorum praedas certantes agere, eaque mutare cum mercatoribus vino advectitio et aliis talibus; praeterea frumentum publice datum vendere, panem in dies mercari, postremo, quaecumque dici aut fingi queunt ignaviae luxuriaeque probra, in illo exercitu cuncta fuere et alia amplius.

Appendix, No. 2.

Scholarship Examinations.

1. At what intervals was the census taken at Rome, and what were the ceremonies observed on its completion? Derive the word *lustrum*, and state the different meanings in which it is used.

2. On what occasion was the office of tribunes of the plebs instituted, and for what purpose? What is meant by the right of intercessio, and how did the tribunes abuse it in the later times of the republic?

3. Give the derivations of the words *oppidum*, *acies*, *comitium* (distinguishing the meanings of the singular and plural), *provincia*, *mancipium*, *cunctus*.

Re-translate into Latin prose:—

This battle being ended, and the nation and name of the Nervii being almost reduced to annihilation, their old men, whom, together with the boys and women, we have stated to have been collected together in the fenny places and marshes, on this battle having been reported to them, since they were convinced that nothing was an obstacle to the conquerors, and nothing safe to the conquered, sent ambassadors to Cæsar by the consent of all who remained, and surrendered themselves to him; and in recounting the calamity of their state, said that their senators were reduced from six hundred to three; that from sixty thousand men they were reduced to scarcely five hundred who could bear arms; whom Cæsar, that he might appear to use compassion towards the wretched and the suppliant, most carefully spared, and ordered them to enjoy their own territories and towns, and commanded their neighbours to restrain themselves and their dependants from offering them injury or outrage.

Outlines of Grecian and Roman History, and of Ancient and Modern Geography.—*Examiner, Professor Moffett*, LL.D.

1. Write a brief sketch of the career and character—(*a.*) of Xenophon; (*b.*) of Cicero, adding dates.

2. Sketch (in words, or lines, or both) the ancient subdivisions of the Peloponnesus.

3. Give a sketch of the early history of Athens, down to the time of Pisistratus.

4. Relate the circumstances which led to the Peloponnesian War; and give the dates of its commencement and close.

5. Mention the principal Cities, Rivers, and Mountains of ancient Italy, with their modern names.

6. Where was [illegible]a Græcia, and why was it so called?

Appendix, No. 2.

Scholarship Examinations.

7. Give the threefold division of Hispania.

8. Give the ancient names of the Danube, the Rhine, the Rhone, the Sea of Azoff; and of the Morea, Negropont, Gibraltar, Malta, Paris, York, Cologne.

9. Fix the localities of Marathon, Salamis, Thermopylae, the Metaurus, the Rubicon, and Pharsalia; and date the actions or events on which their fame rests.

10. Give the dates of th llowing events:—The three Punic Wars; the closings of the Temple anus; the invasions of Italy by Brennus, by Hannibal, and by Pyr the fall of Corinth; the assassination of Julius Cæsar.

11. Name and describe the geographical positions of the birthplaces of Euripides, Lucian, Horace, Virgil, Sallust, and Livy.

12. Give the geographical positions of the following places: name the States to which they respectively belong; and notice any circumstances of interest connected with some or all of them:—

Damascus, Vera Cruz, Long Island, Cracow, Denia, Trebisond, Angola, Tübingen, Samarcand, Dendermonde, Candahar, Leipsic, Angora, Upsal.

Science Scholarship of the First Year.

Arithmetic.—*Professor Allman*, LL.D.

1. Explain the method of reducing a fraction to its lowest terms.

Examples— $\frac{272}{425}$; $\frac{835}{1472}$.

2. State the rules for the conversion of circulating decimals into equivalent vulgar fractions.

Examples— $\cdot\dot{1}42857\dot{1}$; $\cdot342\dot{7}5\dot{3}$.

3. Find the third power of $\cdot\dot{7}$.

4. A banker borrows money at $3\frac{1}{2}$ per cent., and pays the interest at the end of the year; he lends it out at 5 per cent., but receives the interest half-yearly, and by this means gains £200 a year; how much does he borrow?

5. A merchant employs £700 in trade, and at the end of 3 years takes another into partnership, who advances £1,900. At the end of 4 years from this time they have gained £500; how ought this to be divided between them?

6. Extract the square roots of 44533·6609, and of ·0633679929.

7. A and B can do a piece of work alone in 12 and 16 days respectively; they work together at it for 3 days, when A leaves it, but B continues, and after 2 days is joined by C, and they finish it together in 3 days; in what time would C do it alone?

8. Find the value of $1+\frac{1}{1}+\frac{1}{1\times2}+\frac{1}{1\times2\times3}+$, &c., to 7 places of decimals.

---

1. Divide $(ax^2+bxy+cy^2)\ (a'x'^2+b'x'y'+c'y'^2)-(a'x^2+b'xy+c'y^2)\ (ax'^2+bx'y'+cy'^2)$ by $xy'-yx'$; and simplify

$$\frac{\frac{1}{a}+\frac{1}{b+c}}{\frac{1}{a}-\frac{1}{b+c}}\left\{1+\frac{b^2+c^2-a^2}{2bc}\right\}$$

2. Find the greatest common measure of $a^3x^3-a^2bx^2y+ab^2xy^2-b^3y^3$, and $2a^2bx^2y-ab^2xy^2-b^3y^3$.

3. Solve the following equations :—

$$\sqrt{x+15}-\sqrt{x+8}=\sqrt{x}\,;\ (x-1)\,(x-2)\,(x-3)=1.2.3.$$

4. Solve the simultaneous equations :—

$$xy=c(x+y),\ yz=a(y+z),\ zx=b(z+x).$$

5. Two travellers, A and B, set out at the same time from two places, P and Q, respectively, and travel so as to meet. When they meet it is found that A has travelled 30 miles more than B; that A will reach Q in 4 days, and that B will reach P in 9 days, after they meet; find the distance between P and Q.

6. If a straight line be drawn from the vertex of an isosceles triangle to the base or the base produced, the difference between its square and the square of a side of the triangle is equal to the rectangle under the segments of the base.

7. The sum of one pair of opposite sides of a quadrilateral circumscribing a circle is equal to the sum of the other pair, and the straight line which joins the middle points of the diagonals of the quadrilateral passes through the centre of the circumscribing circle.

8. Construct a rectilinear figure equal to a given one, and similar to another given one.

9. Prove that the sum of the radii of the three escribed circles of a triangle exceeds the radius of the inscribed circle by four times the radius of the circumscribed circle of the triangle.

10. If perpendiculars be drawn from any point on the circumference of a circle to two tangents and their chord of contact, the square on the perpendicular to the chord is equal to the rectangle under the other two perpendiculars,

11. Find the area of a triangle in terms of the sides.

12. Find sin A and sin B from the equations :

$$a \sin 2A-b \sin 2B=0,\ a \sin B-b \sin A=0.$$

13. The cotangents of the half angles of a triangle are three successive integers. Prove that the triangle is right-angled, and find the ratio of the sides.

14. Simplify the following expressions :—

$$\frac{\sin (A+B)+\sin (A-B)}{\cos (A+B)-\cos (A-B)}\,;$$

$$\cos^2 (A+B)+\cos^2 (A-B)-\cos 2A \cos 2B.$$

Engineering Scholarships of the Third Year.

Mixed Mathematics.—*Examiner, Professor Curtis*, LL.D.

1. Determine the limiting positions of equilibrium of a heterogeneous beam placed entirely within a rough hollow sphere.

2. Determine the position of equilibrium of a rough sphere placed between two inclined planes.

3. A homogeneous bar rests within a smooth ellipse, whose axis is vertical; prove that, in order that there should be equilibrium, the bar must pass through the lower focus, or be horizontal.

4. A body is projected horizontally with a velocity of 60 feet per second, and is acted on by gravity; find the co-ordinates of its position after the lapse of 3 seconds.

Appendix, No. 2.

Scholarship Examinations.

5. A body is projected vertically upwards; show that at any point of its course in descending it will have the same velocity as it had at the same point in ascending.

6. A sphere of wood, whose specific gravity is s, floats in a liquid, whose specific gravity is l; if its radius be r, show that x, the depth to which it will sink, is given by the equation $x^3 - 3rx^2 + 4r^3 \frac{s}{l} = 0$.

7. Find to what height water will rise in a common suction pump at the second stroke of the piston.

8. Determine the dispersion produced by a thin prism.

9. Determine the magnifying power of a given convex lens with regard to an eye, whose distance of distinct vision is given.

10. How does the obliquity of the ecliptic account for the different length of the day at different places, and various seasons?

Experimental Physics.

1. Describe the hydraulic ram.

2. By what means has been determined the rate of vibration of a gnat's wing?

3. In what two ways may crystallization be produced?

4. When, in consequence of the presence of salts, the boiling point of water is raised, what law does the temperature of the vapour follow?

5. How is the latent heat of vapour determined?

6. Account for the phenomenon known as "Newton's Rings."

7. How may the intensity of the earth's magnetic force at different times be compared?

8. Describe Harris's "unit jar."

9. Describe Faraday's experiment for proving that the charge in a Leyden jar resides on the *glass*. Is the experiment perfectly conclusive?

10. Describe the various galvanic batteries, stating the advantages, or defects, of each.

Medical Scholarship of the Fourth Year.

Medical Jurisprudence.—*Examiner, Professor M'Coy,* F.R.C.S.I.

1. Gases are of two classes, as regards their mode of action in destroying life; give an example of each and the grounds for the distinction.

2. A dead body, with one or two wounds, is found. What would enable you to give an opinion as to their being inflicted before or after death, and the probable time elapsed since they were received?

3. What antidotes would be proper against the poisonous action of oxalic acid?

4. What indications, chemical and sensional, would satisfy you of action of aconitia or its salts, or its presence in the body after death?

5. Is the presence of phlyctinæ positive proof that death was caused by burning?

Materia Medica.

1. In what cases, and on what theory is the phosphate of ammonia prescribed. Any fault in the theory? Dose?

2. State the difference in the action of the jalapæ resina, Br. Phar., of an extract or infusion of the root of the drug previously deprived of its resin, and of the simple powder of the root?

3. What are the disordered actions of Cinchona or its alkaloid (quinia) which are grouped under the term "Quininism"? *Appendix, No. 2.*

4. How would you ascertain the strength of a specimen of the officinal prussic acid, if means were not at hand to obtain its specific gravity accurately? Scholarship Examinations.

5. What are the symptoms displayed in what is called narcotism?

PRACTICE OF MEDICINE.—*Examiner, Professor Colahan,* M.D.

1. Give the symp of disordered action of the brain and nervous system indicative of ic poisoning, and as distinguished from those of ordinary apoplectic ns of disease.

2. Describe the symptoms of acute softening of the brain, and the symptoms which distinguish it from cerebral hemorrhage.

3. State fully the symptoms of simple acute menengitis, and give the essential diagnosis between this form of disease and acute tubercular menengitis.

4. Describe the essential elements of delirium as characteristic—first, of idiopathic disease of brain; second, of blood poisoning, as in typhus, scarlatina, &c.; third, of delirium e potæ.

5. Give the generic symptoms which would enable you to diagnose between cephalalgia of brain origin, and the several forms of pain of head, induced by acute specific diseases, and the sympathetic headache of distant organs.

MEDICAL SCHOLARSHIPS OF THE SECOND AND THIRD YEARS.

MATERIA MEDICA.—*Examiner, Professor M'Coy,* F.R.C.S.I.

1. Diaphoretics are in practice divisible into two classes; give the practical difference, and an example of each class.

2. What is the practical difference between tannic and gallic acids as medical astringents? What other medicines of the same class are incompatible with tannic acid in prescription?

3. What are the active constituents of the pilula gambogiæ comp. and on what principle is it useful to have them combined?

4. In what form is the sodæ arsenias exhibited internally? What preparation is there in the British Pharmacopœia of this form? What advantage is it said to have over the arsenicalis liquor? Its dose?

5. Enumerate the officinal salts of mercury, distinguishing the insoluble, the partially soluble, and the perfectly soluble in water.

PRESCRIPTIONS.

Direct twelve pills with strychnia their active ingredients, with full directions how they are to be made, each pill being a safe dose.

Direct an anodyne to be administered by the rectum, in irritable or painful conditions of the bladder, prostate, or urethra.

Order twelve leeches to be applied to the temples.

Appendix, No. 2.

Scholarship Examinations.

Medical Scholarships of the Second Year.

Natural History.—*Examiner, Professor Melville,* M.D.

Zoology.

1. Give a sketch of the vertebrate structure of the skull.
2. State the characteristics of the *Edentata*, and mention some of the fossil species of the group.
3. Classify the *Ungulata*, and state the characters of the groups adopted.
4. Give a description of the stomach in Ruminants.

Botany.

1. Describe the structure of the ovule, and mention its principal forms.
2. Describe the structure of the wood-bundle in *Dicotyledones.*
3. State the characters of the natural orders :—*Rosaceæ, Orchidaceæ.*
4. Describe the function of nutrition in plants.

Experimental Physics.—*Examiner, Professor Curtis,* LL.D.

1. Distinguish between ductility and malleability. Mention the most ductile, also the most malleable metal.
2. By what experiment is the principle of Archimedes verified?
3. What corrections must be applied to the observed reading of a mercurial barometer to determine the accurate atmospheric pressure?
4. Describe Hero's fountain.
5. How did Major Wilkinson exhibit the expansive force of ice?
6. Enumerate the various kinds of lenses.
7. Describe the mode of charging and discharging a Leyden jar.
8. What is meant by the "magnetic dip"?
9. State the advantages of Grove's battery.
10. The arms of a lever are 2 feet and 5 feet, the power is 6 lbs.; what is the weight according as the lever is of the first, second, or third kinds?

Law Scholarships of the First Year.

Jurisprudence.—*Examiner, Professor Cairnes,* M.A.

1. Describe the general character and results of the change in the Roman constitution attributed to Servius Tullius.
2. The Decemviral legislation forms an epoch in Roman jurisprudence: in what consisted its special importance?
3. Describe the principal steps by which the *plebs* attained to full equality with the patricians.
4. Explain the origin of the *jus gentium*, and its relation to the *jus civile* and *jus naturale.*
5. What was the origin of the "Prætorian Law" of Rome? What is its analogue in the English system?
6. What was the point at issue between the "Proculians" and "Sabinians"?
7. What were the constitutive elements of *status*?
8. State the different kinds of Roman marriage; and point out the legal effect of each on the position of the wife.

9. Distinguish between rights *in rem* and rights *in personam.*

10. Explain the meaning of "fiction," "equity," and "legislation," as these words are employed by Mr. Maine; and show how each operates in the development of law.

11. Explain the origin and nature of the "*responsa prudentum.*" To what did they correspond in the English legal system? The analogy, however, fails in an important point?

12. What was the principle of union in primitive society, as contra-distinguished from that which holds society together in modern times?

13. The distinction referred to in the last question led to certain characteristic distinctions between the legal systems of early and of later ages?

14. Can you explain the more extended use of "adoption" in ancient as compared with modern times?

15. Certain extant social phenomena bear witness to the widespread prevalence in former ages of the *patria potestas?*

16. Define the following terms:—

"Command."
"Law."
"Sanction."
"Duty."
"Positive Law."

17. Bentham reduces all speculation in jurisprudence under three principles?

18. Describe the process of Bentham's "moral arithmetic."

19. There are two reasons why legislation should not be co-extensive with law?

20. What did Bentham mean by "passionate" and "neutral" terms?

Senior Scholarship in Law.

Jurisprudence.—*Examiner, Professor Cairnes,* M.A.

1. What did Bentham mean by the "real" and "apparent" value of a punishment? Which produced all the evil, and which all the good, incident to a penal code?

2. Why does Bentham not include "liberty" amongst the objects of law?

3. On what grounds does Bentham justify the testamentary right?

4. What are the limits to the right of self-defence?

5. State accurately the nature of "frank pledge."

6. What was the meaning and origin of the privilege known as "benefit of clergy"? By what limitations was it restrained in later times, and when was it abolished?

7. What are the conditions (positive and negative) necessary to constitute "an independent political society"?

8. How does Austin justify the expression "positive morality" as applied to international law?

9. "The true nature and fountain of positive law," Austin remarks, "is often absurdly mistaken:" give some examples of the mistakes here referred to, and state Austin's explanation of their origin.

10. In what category of political constitutions does Austin place "limited monarchy"?

Appendix, No. 2.

Scholarship Examinations.

11. Describe the several forms of Roman testament, pointing out in what respect each differed from a modern will. To which of these forms is the modern will to be traced?

12. The principle of the distinction between *res mancipi* and *res nec mancipi* may be traced in other systems of law than the Roman?

13. What was *emphyteusis?* Trace its influence upon the feudal form of ownership.

14. What was the position of married women under the later Roman law?

15. What are the elements of an act necessary to constitute it a crime?

16. What is the basis of truth in the popular notion that certain classes of persons (infants, married women, and lunatics,) cannot commit crime?

17. What, in the early period of English law, was the character of a "misdemeanor" as contradistinguished from a felony? How do these two species of offences now stand related?

18. Distinguish "inquisitorial" from "litigious" procedure, and show the advantages and disadvantages of each plan.

19. State the legal position of the father with reference to the property of his children, as it stood in the time of Julius Cæsar, and the same, as it existed in the time of Justinian.

Senior Scholarship in Metaphysics and Political Economy.

Political Economy.—*Examiner, Professor Cairnes,* M.A.

1. Mill states that "increased dearness of food, the result of increased cost, tends to diminish the quantity of other things rather than of food:" explain how.

2. Imported commodities are higher in price in the importing than in the producing country on an average exactly by the amount of cost of carriage; nevertheless, it does not follow that the importing country pays the cost of carriage?

3. It appears that the average value of imports into England is largely in excess of exports from England: how do you reconcile this phenomenon with the maintenance of an average par of exchange?

4. Describe the practical operation of the Bank Act under each of the following conditions of commerce:—

1. The quiescent state.
2. The ascending period of speculation.
3. The period of falling prices.
4. The period of collapse and panic.

5. Distinguish between wages in the following senses:—"Money wages," "real wages," "proportional wages."

α. Give an example of a high rate of "real wages" coinciding with a low rate of "proportional wages."

β. In which sense is "wages" of importance to the labourer; and in which to the capitalist?

6. A protective tax, to whatever description of commodity it is applied, is an eminently wasteful mode of raising revenue; but when applied to the produce of land, it is liable to a special objection over and above that which is applicable to it in other cases. State the general and the special objection.

7. Two theories have been propounded to account for "gluts," each of which suggests a distinct and appropriate practical remedy?

8. What are the principal elements of fixed and of circulating capital?

9. The extended use of machinery is frequently defended as favourable to the interests of the labouring classes by an unsound argument: what is it? State the true justification.

10. What do you mean by "equality of profits," as assumed in economic reasoning?

11. A rise or fall of general profits is in all cases traceable ultimately to one or more of three causes?

12. To what cause mainly do the precious metals owe their stability of value? In which of them is this condition most fully realized?

13. Explain what is meant by "the fixity of the price of gold."

14. What are Adam Smith's four maxims of taxation?

15. How far does Mill admit that any class should remain untaxed?

Senior Scholarship in Natural Philosophy.

Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. A beam rests against two rough cylindrical pegs, passing under one and over the other, being moreover at right angles to the axis of each of the pegs; prove that when the beam is on the point of slipping, x, the distance of its centre of gravity from the axis of similitude of the cylinders is given by the equation—

$$x = \frac{\sqrt{d^2-(r+r')^2}}{\lambda+\lambda'}\left(\tan\theta + \frac{\lambda' r - \lambda r'}{r+r'}\right)$$

where r, r' are the radii of the principal sections of the two cylinders, d the distance between their axis, λ, λ' their coefficients of friction, and θ the inclination of the beam to the horizon.

2. A heavy heterogeneous plane triangle is supported by three vertical strings, each fastened to one of its sides; given the ratios of the three tensions, show that the points of attachment of the strings are arbitrary, but that, one of them being given, the other two can be determined.

3. A body is restricted to a smooth rectilinear groove, and is acted on by a central attractive force towards a point outside the groove, varying directly as distance, and by a force of resistance varying as velocity; determine its motion.

4. A body describes a cardioid under the action of a force constantly directed towards its cusp; find the law of force.

5. A circular area is just immersed in a liquid; determine its centre of pressure.

6. Find the nature of the surface which will refract rays accurately from one given point to another.

7. If t be the angle of elongation of a planet from the sun, as seen from the earth, when it appears stationary, show that t is determined by the equation $\sin^2 t = \frac{r'^2}{r^2+rr'+r'^2}$, r, r' being the radii of the earth's and planet's orbits, supposed circular.

8. Describe the various methods for estimating the linear dilatation of solids by heat. How may the coefficient of cubical dilatation be deduced from the coefficient of linear dilatation?

9. When a string is set vibrating, another string near it will commence to vibrate, if tuned to the same note as the former; why?

Appendix, No. 2:
Scholarship Examinations.

10. Describe the principal methods of estimating the changes in the earth's magnetic intensity?

11. Describe the various kinds of galvanometers, and the mode of using each.

12. Establish the law of equilibrium of the balance of torsion, and state the principal applications which have been made of this balance in physical inquiry.

Third Year's Students (Science Exhibition).

Mixed Mathematics.—*Examiner, Professor Curtis,* LL.D.

1. If any number of intersecting, or parallel forces, lie in one plane, prove that the sum of their moments, taken with respect to any point in the plane, is equal to the moment of their resultant, taken with respect to the same point.

2. If a be the side of a regular hexagon, which is divided into two equal parts by a diagonal, prove that the distance of the centre of gravity of either half from the diagonal is equal to $\frac{2a}{3\sqrt{3}}$.

3. Two equal bars, AB, BC, of uniform thickness and density, rigidly connected at B, are suspended from A; if θ and α denote respectively the inclination of AB to the vertical, and to BC, prove that, in the position of equilibrium, $\cot\theta = \frac{3-\cos\alpha}{\sin\alpha}$.

4. A given weight W is placed at the centre of inscribed circle of a horizontal triangular table, the sides of which are a, b, c, and whose weight is w; prove that the pressures, sustained respectively by the three legs placed at the three angles A, B, C, are—

$$\frac{w}{3}+\frac{a}{a+b+c}\,W;\ \frac{w}{3}+\frac{b}{a+b+c}\,W,\ \frac{w}{3}+\frac{c}{a+b+c}\,W.$$

5. Find the velocity acquired by a heavy body in falling down the entire length of an inclined plane.

6. From a given point draw a line down which a heavy body will descend to a fixed line in the shortest time possible.

> The line of descent makes with the perpendicular to the fixed line an angle equal to half the inclination of the fixed line to the horizon.

7. If a cone be immersed in a liquid, its base being horizontal and vertex at a given depth below the surface of the liquid, find an expression for the entire pressure to which it is exposed.

8. If equal weights of n substances, whose specific gravities are $s_1, s_2, \ldots s_n$, be compounded without loss of volume, prove that s, the specific gravity of the compound, is given by the equation—

$$\frac{1}{s}=\frac{1}{n}\left(\frac{1}{s_1}+\frac{1}{s_2}+\ \&c.\ldots\frac{1}{s_n}\right)$$

9. Establish the formula connecting the conjugate foci of a thin lens.

10. Prove that for objects near the zenith the refraction varies as the tangent of the apparent zenith's distance.

Engineering Scholarships.

Senior Class.—*Examiner, Professor Townsend,* M.A.

1. Reduce the accompanying figure to a triangle, and calculate the acreage, the scale being 2 chains to 1 inch.

2. In the transit theodolite, if the level be attached to the telescope and not to the vertical vernier, how would you effect its adjustment?

3. The contents of a field measured with a chain $\frac{1}{4}$ of a link too long are 19A. 3R. 36P.; required the true acreage.

4. The sides of a triangle are 2569, 4900, 5025 links; find the contents in Irish acres.

5. Find the latitude of a place from the altitude of the sun, using all the necessary corrections, and taking the natural horizon.

6. The radius of a sphere is R; find volume of cap cut off by a plane whose distance from centre is P.

7. Explain the mode of solving large triangles in a trigonometrical survey by Legendre's principle; *e.g.*, if three angles be observed and a side measured, how would you test the accuracy of the observations, and how would you solve the triangle?

8. Prove the prismoidal formula, and give the general expressions for area of ground and slopes.

9. Compute the area of cross section of a piece of earthwork where the ground has a uniform sidelong slope not intersecting the base.

10. Define a truly level surface. Show the modifications of it adopted in practice, and describe how it affects levelling operations.

Middle Class.

1. Given projections of a point and of a sphere, construct the traces of plane of contact of tangent cone from point to sphere.

2. Given the traces of a plane and horizontal projection of a point in it, if with this point as centre a circle of given radius be described in the plane; find its horizontal projection.

3. Given the projections of two lines; find projections of shortest distance between them.

4. Through a given point draw a line perpendicular to a line whose projections are given.

5. Given the radius of a circle; find the semi-axes and area of its isometrical projection, and show how the projection is effected.

6. Find the vertical projections of the intersection of a sphere, and a vertical cylinder.

7. Given the horizontal projection of the eye, "ground line," height of eye, and picture of a line situated in the horizontal plane; find the line.

8. Given the rise and span of a five centered arch, construct it so that the extreme radii may equal the radii of curvature of an ellipse on the same axes, and the intermediate a geometrical mean between them.

9. Given the projections of a line, find its vanishing point; and trace of a plane, its vanishing line.

10. Construct a scale of ·875 inch to 20 feet sufficiently long to measure 100 feet, and subdivide it into feet.

11. The scale of a French map is given in French leagues; construct a scale of English miles sufficiently long to measure 200 miles. N.B.—A French league = 4262·84 yards, and 75 French leagues occupy 11·25 inches.

12. Construct the shadow on a circular pulley.

N.B.—Double credit will be given to 1 and 7.

Appendix, No. 2.

Scholarship Examinations.

CHEMISTRY.—*Examiner, Professor Rowney* PH.D.

1. Describe the method of preparing and the properties of oxygen gas.
2. Write the formulæ of the following compounds :—acetate of lead, bichromate of potash, alum, and gypsum.
3. What decomposition takes place when nitrate of ammonia is heated in a flask? Give the decomposition in symbols.
4. By what methods is the metal aluminum obtained?
5. What is meant by a rational and empirical formulæ?
6. What reaction takes place when a mixture of chlorine and hydrogen gases is exposed to the action of light?
7. What is the composition of alcohol and how is it obtained?
8. Describe the method of obtaining caustic potash.
9. What is meant by catalysis?
10. Describe the process for obtaining metallic mercury.
11. When are salts said to be isomorphous?
12. What is meant by a homologous series?

Sessional Examinations.

SESSIONAL EXAMINATIONS, 1865.

FRENCH.—*Examiner, Professor Bensbach,* M.D.

FIRST YEAR'S STUDENTS.

[Extracts from Mignet's "Revolution Française" and Racine's "Athalie." Exercises from Delille's Grammar, and questions in French Grammar.]

Honors.

[Extracts from Mignet and Racine, which had not been read in the class. Exercises from Delille's Grammar, questions in French Grammar, and questions in French literature.]

SECOND YEAR'S STUDENTS.

[Extracts from La Bruyère and Voltaire's "Mérope," and exercises from Delille's French Grammar.]

Honors.

Translate into French :—

Catherina, born near Dorpat, a little city in Livonia, was heiress to no other inheritance than the virtues and frugality of her parents. Her father being dead, she lived with her aged mother in their cottage covered with straw; and both, though very poor, were very contented. Here, retired from the world, by the labour of her hands she supported her parent, who was now incapable of supporting herself. While Catherina was engaged at her work, the old woman would sit by and read some book of devotion.

Though her face and person were models of perfection, yet her whole attention seemed bestowed upon her mind; her mother taught her to read, and an old Lutheran minister instructed her in the maxims and duties of religion.

Translate the following extracts :—

Zopire. Je te connais, Omar : en vain ta politique
Vient m'étaler ici ce tableau fanatique ;
En vain tu peux ailleurs éblouir les esprits ;
Ce que ton peuple adore excite mes mépris.
Bannis toute imposture, et d'un coup d'œil plus sage
Regarde ce prophète à qui tu rends hommage ;
Vois l'homme en Mahomet ; conçois par quel degré
Tu fais monter aux cieux ton fantôme adoré.
Enthousiaste ou fourbe, il faut cesser de l'être ;
Sers-toi de ta raison, juge avec moi ton maître :
Tu verras de chameaux un grossier conducteur,
Chez sa première épouse insolent imposteur,
Qui, sous le vain appât d'un songe ridicule,
Des plus vils des humains tente la foi crédule ;
Comme un séditieux à mes pieds amené,
Par quarante vieillards à l'exil condamné :
Trop léger châtiment qui l'enhardit au crime.
De caverne en caverne il fuit avec Fatime.
Ses disciples errants de cités en déserts,
Proscrits, persécutés, bannis, chargés de fers,
Promènent leur fureur, qu'ils appellent divine ;
De leurs venins bientôt ils infectent Médine.
Toi-même alors, toi-même, écoutant la raison,
Tu voulus dans sa source arrêter le poison.
Je te vis plus heureux, et plus juste, et plus brave,
Attaquer le tyran dont je te vois l'esclave.
S'il est un vrai prophète, osas-tu le punir ?
S'il est un imposteur, oses-tu le servir ?

VOLTAIRE.

[An extract from La Bruyère, *vivâ voce* from the chapter—"De l'Homme."]

Maurice obtint la permission de retourner à l'armée à la tête de son régiment, et il prit part aux guerres que l'électeur de Saxe soutenait alors pour reconquérir son royaume de Pologne. Un jour qu'il allait rejoindre l'armée saxonne à Sandomir, ayant cru sur un faux bruit qu'un armistice venait d'être signé entre les Saxons et les Polonais, il se mit en route accompagné seulement de cinq officiers et d'une douzaine de serviteurs. Arrivé au petit village de Krosniec, il se mettait à table avec ses officiers dans une salle d'auberge, quand on lui annonça que les ennemis accouraient. C'était une troupe d'environ huit cents cavaliers. Sans hésiter une seconde, Maurice se décide à la lutte et prend ses dispositions avec autant de sang-froid que de vigueur. Il a trop peu de monde avec lui pour défendre la cour de l'auberge et les murailles qui l'environnent ; il se retranche dans la maison, résolu à s'ensevelir sous ses ruines plutôt que de se rendre. C'est Charles XII. à Bender. Quelques-uns des soldats de Maurice gardent le rez-de-chaussée de la maison, tandis que les autres, déchargeant leurs mousquets par les fenêtres du premier étage, déciment les assaillans. Les postes d'en bas vont céder au nombre ; Maurice les rappelle, detruit l'escalier, barricade les portes, et la lutte recommence avec acharnement. L'ardeur du chef et sa présence d'esprit se communiquent aux soldats. Vingt contre mille, ils comprennent qu'ils doivent frapper à coup sûr. Ceux-ci tirent par les croisées converties en meurtrières ; ceux-là, faisant des troucés dans

Appendix, No. 2.

Sessional Examinations.

le plancher, mitraillent du haut en bas l'ennemi entassé dans les salles. Le combat dura plus de cinq heures; les Polonais, dont les rangs venaient tomber tour à tour devant cette redoute si bravement défendue, se décident enfin à battre en retraite, laissant seulement quelques sentinelles pour investir la place.—SAINT-RENÉ TAILLANDIER.

GERMAN.—*Examiner, Professor Bensbach,* M.D.

FIRST YEAR'S STUDENTS.

[Extracts from Schiller's Poems and Scherer's "Lecture on Literature." Exercises from Tiack's German Grammar.]

Honors.

[Extracts from Schiller's Poem "Das verschleinte Bild zu Lais," and from Scherer's "Lecture on Literature."]

We are now at the end of our studies of the first year, and to-day our
studien
professor examines us all to see what progress we have made in the
prüfen *Fortschritt,* m. (plur.)
German language.

We have read many beautiful poems of Schiller, who is one of the greatest German poets. We have also read a part of a lecture on the
Dichter, m. *Theil,* m. *Vorlesung über*
earliest literature of Germany. We found this lecture very difficult in the
früh *Deutschland,* n. *schwer*
beginning, but it became gradually more easy. The German grammar
Anfang, m. *allmählig* *leicht* *Grammatik,* f.
and some easy exercises formed also a part of our studies, for the know-
ausmachen *Kennt-*
ledge of the grammar is necessary.
niss, f. *nothwendig.*

SECOND YEAR'S STUDENTS.

Honors.

Translate into German:—

Lewis saw with peculiar emotion the calamities of the House of Stuart. It is but just to say that motives nobler than ambition or fear had a large share in determining his course. His heart was naturally compassionate, and this was an occasion which could not fail to call forth all his compassion. His situation had prevented his good feelings from fully developing themselves. Sympathy is rarely strong where there is a great inequality of condition; and he was raised so high above the mass of his fellow-creatures that their distresses excited in him only a languid pity. But all the tenderness of which he was capable was called forth by the misery of a great king who had a few weeks ago been served on the knee by lords, and who was now a destitute exile. With that tenderness was mingled, in the soul of Lewis, a not ignoble vanity.

MACAULAY: *History of England,* II.

Translate the two following extracts :—

I.

Der Mai ist gekommen, die Bäume schlagen aus,
Da bleibe wer Lust hat mit Sorgen zu Haus;
Wie die Wolken wandern am himmlischen Zelt,
So steht auch mir der Sinn in die weite, weite Welt.

Herr Vater, Frau Mutter, daß Gott euch behüt,
Wer weiß, wo in der Ferne mein Glück mir noch blüht;
Es gibt so manche Straße, da nimmer ich marchirt,
Es gibt so manchen Wein, den ich nimmer noch probirt.

Frisch auf drum, frisch auf im hellen Sonnenstrahl,
Wohl über die Berge, wohl durch das tiefe Thal;
Die Quellen erklingen, die Bäume rauschen all',
Mein Herz ist wie 'ne Lerche, und stimmet ein mit Schall.

Und find' ich keine Herberg, so lieg' ich zu Nacht
Wohl unter blauem Himmel; die Sterne halten Wacht;
Im Winde die Linde, rauscht mich ein gemach,
Es küsset in der Früh' das Morgenroth mich wach.

O Wandern, o Wandern, du freie Burschenlust,
Da wehet Gottes Odem so frisch in die Brust;
Da singet und jauchzet das Herz zum Himmelszelt:
Wie bist du doch so schön, o du weite, weite Welt!

E. Geibel: Gedichte, Lied 32.

II.

Als die Gallier durch das collinische Thor in die Stadt eingebrochen waren, fanden sie alles öde und ausgestorben: das Grausen, welches einen Fremden ergreift, der im Sommer in einer Stadt des hohen Nordens um Mitternacht Tageshelle und kein Leben auf den Gassen sieht, kam über sie. Alle Häuser waren verschlossen, man zog immer vorwärts bis auf das Forum. Hier erblickten sie in der Höhe die Bewaffneten auf der Burg, auf dem Comitium die curulischen Greise, welche Wesen einer andern Welt zu sein schienen. Zweifelhaft ob nicht die Götter herabgestiegen wären, um Rom zu retten oder zu rächen näherte sich ein Gallier einem der Priester, M. Papirius, und berührte seinen weißen Bart, der Greis schlug ihn zornig mit dem elfenbeinernen Scepter über den Kopf; der Barbar hieb ihn nieder, und alle wurden umgebracht. Dann begann die Plünderung im ganzen Umfang der Stadt, und bald brach hier und dort Feuer aus. Tag für Tag, so lang verborgenes Gut entdeckt ward, erneuerten sich diese Auftritte; die Feuersbrünste vermehrten sich, und bis auf wenige Häuser auf dem Palatium, welche die Heerführer zur Wohnung für sich erhalten ließen, ward die ganze Stadt eingeäschert.

B. G. Niebuhr: Römische Geschichte.

Appendix, No. 2.

Sessional Examinations.

THIRD YEAR'S STUDENTS.

Honors.

Translate into German :—

The personal qualities of the French king, Louis XIV., added to the respect inspired by the power and importance of his kingdom. No sovereign has ever represented the majesty of a great state with more dignity and grace. He was his own prime minister, and performed the duties of that arduous situation with an ability and an industry which could not be reasonably expected from one who had in infancy succeeded to a crown, and who had been surrounded by flatterers before he could speak. He had shown, in an eminent degree, two talents invaluable to a prince, the talent of choosing his servants well, and the talent of appropriating to himself the chief part of the credit of their acts. In his dealings with foreign powers he had some generosity, but no justice.

MACAULAY: *History of England.*

Translate two of the following extracts :—

I.

Vermöge seines Feuchtigkeits-gehalts leitet der menschliche Körper die Elektricität. Wenn man auf dem Boden stehend den Conduktor der Elektrisirmaschine anfaßt, so wird alle Elektricität durch den Körper hindurch abgeleitet. Isolirt man aber den Körper, indem man sich auf einen Harzkuchen oder einen mit Glasfüßen versehenen Schemel stellt und bringt ihn mit dem Conduktor der Elektrisirmaschine in Verbindung so wird derselbe selbst elektrisch und man kann aus ihm, wie aus dem Conduktor der Maschine, Funken ziehen. Dabei sträuben sich die Haare auf dem Kopfe und die elektrisirten Personen haben auf der Haut, namentlich des Gesichts, eine eigenthümliche Empfindung, ähnlich der, als ob sie in Spinnweben gerathen wären.

Man brachte in früherer Zeit dieses sogenannte elektrische Bad häufig bei Kranken in Anwendung und schätzte es als ein kostbares Reitzmittel. Die physiologischen Wirkungen desselben sind jedoch sehr gering und nur bei empfindlicheren Personen wird man danach eine Erhöhung der Eigenwärme oder eine größere Pulsfrequenz nachweisen können.

Das Ueberspringen des elektrischen Funkens auf einen Korpertheil verursacht eine unangenehme prickelnde oder stechende Empfindung und bei längerer wiederholter Einwirkung eine Röthung der getroffenen Hautstelle.

B. A. Erdmann:—Anwendung der Electricität.

II.

Wilhelm der Erste, Prinz von Oranien, stammte aus dem deutschen Fürstenhause Nassau, welches schon acht Jahrhunderte geblüht, mit dem österreichischen eine Zeitlang um den Vorzug gerungen, und dem deutschen Reiche einen Kaiser gegeben hatte. Außer verschiedenen reichen Ländereien in den Niederlanden, die ihn zu einem Bürger dieses Staats und einem gebornen Vasallen Spaniens machten, besaß er in Frankreich noch das unabhängige Fürstenthum Oranien. Wilhelm ward im Jahr 1533 zu Dillenburg, in der Grafschaft Nassau, von einer Gräfin Stolberg geboren. Sein Vater, der Graf von Nassau, hatte die protestantische Religion angenommen, worin er auch seinen Sohn erziehen ließ; Karl der Fünfte aber, der dem Knaben schon frühzeitig wohl wollte, nahm ihn sehr jung an seinen Hof und ließ ihn in der römischen aufwachsen. Dieser Monarch, der in dem Kinde den künftigen großen Mann schon erkannte, behielt ihn neun Jahre um seine Person, würdigte ihn seines eigenen Unterrichts in Regierungsgeschäften, und ehrte ihn durch ein Vertrauen welches über seine Jahre ging. Ihm allein war es erlaubt, um den Kaiser zu bleiben, wenn er fremden Gesandten Audienz gab—ein

Beweis, daß er als Knabe ſchon angefangen haben mußte den ruhmvollen Beinamen des Verſchwiegenen zu verdienen. Der Kaiſer erröthete ſogar nicht, einmal öffentlich zu geſtehen, daß dieſer junge Menſch ihm öfters Anſchläge gebe, die ſeiner eigenen Klugheit würden entgangen ſeyn. Welche Erwartungen konnte man nicht von dem Geiſte eines Mannes hegen der in einer ſolchen Schule gebildet war!

Schiller: Abfall der vereinigten Niederlande.

III.

Mein junger Fürſt! man ſoll nicht zagen,
Will uns das Schickſal Gunſt verſagen!
Oft iſt ein Unglück uns beſtimmt,
Das gar ein fröhlich Ende nimmt.—
Mein Bruder ward mit mir erzogen:
Das war ein Burſch euch! ungebogen
Von jeder Noth, ein ſtarker Bub,
Dem ſtets Gefahr den Muth erhub.
Nun kam an einem Abend Kunde,
Es lieg ein Bär im Eichengrunde.
Wir beide faßten ſchnell den Rath
Zur erſten kühnen Waffenthat.
Auf engem Pfad war's wo wir ritten;
Da lag ein Würzlein in der Mitten,
Das ſcheu mein Pferd, weiß nicht wie's kam,
Vielleicht für eine Schlange nahm.
Wild bäumt es: ich, der Kerngeſunde,
Im Fall ſchlag ich mir eine Wunde
Die rechte Hand war ausgerenkt—
Da hieß es ſtill nach Haus gelenkt!
Nun weiß ich noch wie ich gewettert,
Daß ſo mein grüner Ruhm entblättert,
Ich hieb in meinem blinden Zorn
Das arme Roß mit Gert' und Sporn.
Doch wie der Tag zu Ende eilte,
Allmählich ſchon der Arm mir heilte,
Da brachten ſie in blutigem Graus
Den todten Bruder mir in's Haus.

G. Kinkel: Otto der Schütz.

MIXED MATHEMATICS.—*Examiner, Professor Curtis,* LL.D.

THIRD YEAR'S ARTS.

1. Find the point on a surface represented by $\left(\frac{x}{a}\right)^3 + \left(\frac{y}{b}\right)^3 + \left(\frac{z}{c}\right)^3 = 1$, where a particle attracted to the origin by a force varying as the distance will rest in equilibrium.

2. A smooth hemispherical shell, whose base is closed, includes two equal spheres, whose radii are one-third of that of the shell; the shell

Appendix, No. 2.

Sessional Examinations.

is placed with its base vertical: find the mutual pressure at all the points of contact.

3. Find the centre of gravity of the volume included between a paraboloid of revolution and a plane perpendicular to its axis.

4. Find the form of the catenary of equal strength.

5. Determine the positions of equilibrium of an elliptic board, the plane of which is vertical, supported by two pegs in the same horizontal line.

6. The velocity of projection and initial point being given, determine the direction of projection so that the projectile may touch a given line.

7. Form the equation of the circular pendulum and determine in what cases this equation may be integrated.

8. Establish the following equation for the motion of a body in an ellipse, acted on by a force directed towards the focus, $v^2 = \mu\left(\frac{2}{r} - \frac{1}{a}\right)$.

9. A body describes an ellipse under the action of a force directed towards a point in its plane; find the law of force.

10. Determine the position of equilibrium of a portion of an ellipsoid floating in a liquid.

11. Find the caustics by reflexion and refraction of an equilateral spiral, the luminous point being at the pole.

12. An orbit being given, determine the corresponding aberratic curve.

Second Year's Arts.

Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. Find the resultant of two forces of 10 lbs. and 3 lbs. respectively, when their directions intersect—

(α) At a right angle.
(β) At an angle of 60°.
(γ) At an angle of 30°.

2. The upper extremities of two cords, whose lengths are 15 and 20 inches respectively, are fastened to two points in a horizontal line, the other extremities are joined at the same point to a weight of 20 lbs., and the strings intersect at right angles; find the tension on each of the strings.

3. Resolve a force of 700 lbs. into two codirectional forces acting at distances from it of 3 and 13 respectively.

4. Find the centre of gravity of the quadrilateral figure formed by two isosceles triangles on same base, their altitudes being 3 feet and 5 feet respectively—

(α) When the vertices of the triangles are at the same side of the base.
(β) When the vertices are at opposite sides of the base.

5. In a simple wheel and axle the radius of the axle is 3 inches, that of the wheel 1 foot, the power is 16 lbs.; find the weight.

6. Two heavy balls are projected at the same instant with velocities

of 5 and 7 respectively, the first horizontally, the second in the direction making 30° with the vertical; find the distance between the balls after 5 seconds, and show how to determine the absolute position in space of each at any instant.

7. A prism, whose edge measures one foot, sinks in water to the depth of 8 inches, and in another liquid to the depth of 10 inches; find the specific gravity of the liquid, and of the solid prism.

8. A square, the side of which is 4 inches, is sunk in a liquid whose specific gravity is 2, so that its centre is 3 feet below the surface; find the total pressure of the liquid against either surface of the square.

9. The focal length of a concave mirror is 8 inches, an object is placed 5 inches from it; find the position and magnitude of its image.

10. The radii of the two surfaces of a thin double convex lens of glass are 8 inches and 10 inches respectively; find its focal length.

11. Explain why during half the year the days are longer than the nights, while during the rest of the year the reverse is the case.

12. How may the latitude and longitude be found *at sea?*

Honors.

1. To what problem of plane trigonometry are the following mechanical problems respectively reducible, and by what formula would you solve each?—

(*a*) Given the magnitude of each of three forces in equilibrio; find the angles between their directions.

(*b*) Given two forces and the angle between their directions; find the magnitude of their resultant, and its inclination to either of the components.

2. The angle between two forces is 37°, and their resultant divides it into segments of 31° and 6° respectively; find the ratio of the two forces.

3. Deduce the equation of equilibrium of a heavy body placed on a rough inclined plane, and acted on by a force making an angle α with the plane.

4. A stone is projected down a vertical height of 500 yards, and performs its course in 9 seconds; find velocity of projection.

5. Establish the formulæ for centrifugal force, viz.:—

$$f = \frac{v^2}{r} = \omega^2 r = \frac{4\pi^2 r}{T^2}.$$

6. An imperfectly elastic body falls on a horizontal slab from a height H; prove that h, the height to which it will rise after the nth hop, is given by the equation, $h = e^{2n}H$, where e is the coefficient of elasticity.

7. A rectangular surface, 6 feet by 8, is immersed in water with the shorter side horizontal, the upper surface being 16 feet, and the lower 24 feet below the surface; find the centre of pressure, and the total pressure.

8. How would you find the specific gravity of a small *solid* by means of the specific gravity bottle?

9. Deduce the formulæ for determining the position and magnitude of an image formed by a mirror, and a thin lens, the magnitude and position of the object being given. How do you know in each case whether the image is erect or inverted?

10. Find the principal focus of a spherical lens of glass.

Appendix, No. 2.

Sessional Examinations.

11. Prove that the refraction of objects *near the zenith* is nearly proportional to the tangent of the apparent zenith distance.

12. Deduce the formula for computing the moon's distance from the earth.

MATHEMATICS.—*Examiner, Professor Allman*, LL.D.

THIRD YEAR'S STUDENTS.

1. Find the equations and magnitude of the shortest distance between two lines which do not intersect.

2. Find the condition that the plane $Ax + By + Cz + D = 0$, shall touch the ellipsoid $\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$.

3. Determine the equation of the right conoid passing through a helix and the axis of the cylinder on which the helix is traced.

4. Find the osculating plane of the line of curvature—

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1, \quad \frac{x^2}{a_1^2} + \frac{y}{b_1^2} + \frac{z^2}{c_1^2} = 1.$$

5. Determine the equation of the cone whose vertex is at the point x', y', z', and which stands on the conic in the plane xy, $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$.

6. Integrate the differential equations: $xydy - y^2dx = (x+y)^2 e^{\frac{y}{x}}\, dx$; $(x+y)^2dy = a^2dx$; $y = x(p - \sqrt{1+p^2})$; $x^2 \frac{d^2y}{dx^2} - x\frac{dy}{dx} = 3y$.

7. Show that the curve in which the radius of curvature varies as the cube of the normal is a conic section.

8. Investigate the solution of the partial differential equation—

$$Pp + Qq = R.$$

Integrate the partial differential equations—

$$(x+y)p + (y-x)q = z; \quad x^2p + y^2q = nxy.$$

SECOND YEAR'S STUDENTS.

1. (*a*). Find the equation to the normal of a parabola which is inclined at a given angle to the axis of the curve.

(*b*). Hence find the locus of the intersection of two normals of a parabola which cut at right angles.

2. If tangents be drawn from any point without an ellipse to the curve, prove that their lengths are inversely as the sines of the angles which they make with the lines drawn from their points of contact to either focus.

3. Change the independent variable in $(1-y^2)\frac{d^2u}{dy^2} - y\frac{du}{dy} + n^2u = 0$, from y to x, being given $y = \cos x$.

4. Let $y^2 - ay + b = 0$; expand y in powers of $\frac{1}{a}$.

5. The degree of a curve being n, prove that there cannot be more than $n(n-1)$ tangents drawn to it from one point.

6. Find the radius of curvature of the catenary—

$$y = \frac{c}{2}\left(e^{\frac{x}{c}} + e^{-\frac{x}{c}}\right).$$

7. Find the length of the arc measured from the origin of co-ordinates of the curve $ay^2 = x^3$.

8. (*a*). Find $\int dx\, x^3\, (a+bx^3)^{\frac{3}{2}}$; $\int \frac{dx}{(a+bx^2)^2}$; $\int \frac{dx}{a+b\tan x}$.

(*b*). And prove the formula of reduction—

$$\int dx\, (\tan x)^n = \frac{(\tan x)^{n-1}}{n-1} - \int dx\, (\tan x)^{n-2}$$

FIRST YEAR'S STUDENTS.

Honors.

1. O is a point within a triangle A B C at which the sides subtend equal angles, and α, β, γ are the distances from A, B, C respectively; find the sides and the area of the triangle.

2. The base of a spherical triangle is produced until the whole arc is a quadrant, and the extremity is joined to the vertex by an arc of a great circle; express the cosine of this arc in terms of the sides of the triangle.

3. Prove that the surface of a sphere is equal to the curved surface of its circumscribed cylinder.

4. Expand θ in powers of $\tan\theta$.

5. Define triangular, pyramidal, and, in general, figurate numbers, and show how to find the sum of n terms of each series.

6. Solve the following equations—

$$x^3 - 9x^2 + 6x + 2 = 0\,;\quad x^5 - 11x^4 + 17x^3 + 17x^2 - 11x + 1 = 0.$$

7. Solve the equation $x^4 + 5x^3 - 12x^2 - 44x + 80 = 0$, which has two equal roots.

8. Find the area of the triangle included between the lines $y = x\tan\alpha$, $y = x\tan\beta$, $y = x\tan\gamma + b$.

9. If $\frac{x}{a} + \frac{y}{b} = 1$ be the equation of the chord of the circle $x^2 + y^2 = r^2$; find its length.

Pass.

1. Find the number of combinations of n things, taken r at a time.

2. Determine all the prime numbers as far as 100; and decompose the number 138567 into the continued product of its prime factors.

3. Find the sum of the first 57 odd numbers.

4. State distinctly the several steps in the solution of a simple equation. Solve the equations—

$$\frac{x+5}{2} + \frac{2x-5}{5} = 3x - 9\,;\quad \frac{a+x}{b+x} = \frac{c+x}{d+x}.$$

5. A person after paying his workmen a shillings each has b shillings remaining; if he had paid them c shillings each, he would have had d shillings remaining; how much money had he?

Appendix, No. 2.

Sessional Examinations.

6. Solve the simultaneous equations—

$$ax+by=c,\ a'x+b'y=c'.$$

7. Give the method of solving a quadratic equation. Solve the equations—

$$\frac{x-2}{x+2}+\frac{x+2}{x-2}=\frac{2(x+3)}{x-3};$$

$$\frac{1}{x-a}+\frac{1}{x-b}+\frac{1}{x-c}=0.$$

8. Describe a square that shall be equal to a given rectilineal figure.

9. The opposite angles of a quadrilateral figure inscribed in a circle are together equal to two right angles.

10. The sides about the equal angles of equiangular triangles are proportional; and those which are opposite to the equal angles are homologous.

11. If from any angle of a triangle a perpendicular be let fall on the opposite side, the rectangle under the sides containing that angle is equal to the rectangle under the perpendicular and the diameter of the circle circumscribed about the triangle.

12. In any triangle the sides are proportional to the sines of the opposite angles.

13. Find expressions for the sine and cosine of half an angle of a triangle in terms of the sides.

14. Prove the formulæ—

$$\sin(A-B)=\sin A\cos B-\cos A\sin B;$$

$$\frac{\sin A+\sin B}{\cos A+\cos B}=\tan\tfrac{1}{2}(A+B);$$

$$\tan 3A=\frac{3\tan A-\tan^3 A}{1-3\tan^2 A}.$$

METAPHYSICS.—*Examiner, Professor Moffett,* LL.D.

1. State the various views that may be entertained on the question of the Origin of Ideas, and the Origin of Knowledge.

2. Give Descartes' *proof* of Innate Ideas. Hamilton's explanation of the Cartesian doctrine cuts short much controversy?

3. State the principal objections to the doctrine of Natural Realism suggested by Hamilton, with his replies.

4. Show how the distinction of Sensation and Perception is related to that of the Qualities of Body. Explain and exemplify "Qualities *mediately* perceivable," and "Secundo-Primary Qualities." What was Kant's view of the Primary Qualities?

5. Examine the following reasoning:—"The Colour is not in the Object but in the Mind: we may, therefore, regard Extension and the *whole* Material Object as in the Mind." Define Colour.

6. "Our estimate of an object's distance from us," says Mill, "is the result of a comparison"—What are the things compared? Distinguish the Optical from the Muscular sensations in vision; and define Aërial and Linear Perspective.

7. In the sense of Touch, as commonly understood, there seem to be various Senses: specify these; the organic apparatus connected with them; and the functions fulfilled by them.

8. Explain and give examples of the Automatic or Reflex processes.

9. Discuss the question—Whence do we derive the idea of Power; and give a classification of the opinions of philosophers on this subject.

10. Define and analyse Imagination; and point out the various operations and uses of this Faculty.

11. State and examine Descartes' Criterion of Truth; and his famous argument based on the Idea of Perfection.

12. State and examine the fundamental dogma of all forms of Pantheism; and the leading definitions and axioms of Spinoza's system.

13. Give Locke's definitions of Substance, Real and Nominal Essence, and Moral Good.

14. Cousin mentions an important instance in which he says that Locke has not confounded the Condition of a Principle with the Principle itself; and he mentions two opposite Schools that have fallen into error on this point?

15. Kant's doctrine as to the *subjectivism* of all Knowledge was also affirmed by Bacon; on what grounds? Do the Senses *deceive* us?

16. Explain fully and exemplify Kant's division of Judgments. Which class does he pronounce essential to Metaphysical science?

17. How are the Sensibility and the Understanding brought into connexion? Explain his deduction of the pure principles of the Understanding and the Reason.

18. Explain what is meant by the Paralogisms, Antinomies, and Ideals of the Reason.

19. What errors and defects have been pointed out in Kant's system?

20. Define Instinct, Passion, Affection, and Emotion; and classify the two latter mental states.

21. Discriminate the emotion of the Beautiful from that of the Useful and of the Sublime; and state the objective conditions which awaken these emotions severally.

ENGLISH LITERATURE.—*Examiner, Professor Moffett,* LL.D.

1. Distribute chronologically in tabular form the linguistic changes which have marked the whole of the period from the extinction of the Roman dominion in Britain to the accession of Elizabeth, giving in each case the works you would select as typical.

2. Dr. Latham has said, "The earlier the stage of a language is, the greater the amount of its inflexional forms." Is this true?

3. Illustrate this remark:—"The Literature of our Middle Ages is distinguished from that of Modern Times by several strongly marked features."

4. What qualities in Chaucer seem to you most remarkable? Illustrate your opinion by quotations.

5. Explain the following words and expressions from the Prologue, quoting the context in each case:—halwes, parvis, wastel, sheldes, sausefleme, mistere, lodemanage, goliardeis; for the nones, after on, for him was lever han.

6. Who are the principal personages in the several books of the Fairy Queen; and what moral virtues do they respectively represent?

7. Describe the six "counsellours" of Lucifera. Why has the poet thus associated them with her, and with each other?

8. How has the structure of the poem been criticised? And how defended?

Appendix, No. 2.

Sessional Examinations.

9. Show that the poetic life of Shakespeare may be divided into three periods; and name the chief dramas belonging to each period.

10. Give Schiller's definition of Tragedy, and delineate with reference to it the character of *Macbeth*. What is the source of "tragic pleasure"?

11. Enumerate the prose works of Bacon, Hobbes, and Milton, with brief remarks on the style of each.

12. Hallam says, "two of Ben Jonson's epitaphs are known by heart." Quote them.

13. How may Satirical Poetry be divided? Name a remarkable specimen of each kind; and mention the earliest writers of English Satire.

14. Sir James Stephen has said:—"Parsimonious of his applause, Pope has bestowed no praise which has not passed into a proverb; Dryden's eulogies are almost universally forgotten, but his censures are immortal." Illustrate this statement by naming the principal objects of Dryden's invective and Pope's panegyric, respectively.

15. What was the fundamental element of Pope's intellectual character? Give an estimate of the philosophical and poetical merits of the Essay on Man.

16. Johnson bestows unqualified praise on a passage in the Essay on Criticism; quote the lines, and the reasons of Johnson's eulogy.

17. In reference to what controversy did Swift write the Battle of the Books? Name the principal opponents in this controversy.

18. Macaulay remarks that the history of Burke's mind resembles the history of Bacon's in *the order* in which its powers expanded themselves. Explain this statement. How did Goldsmith characterize the genius of Burke?

19. Examine Wordsworth's theory of Poetical language.

20. Define and exemplify Euphuism, Annomination, and Assonance.

21. Point out the *contradictio in adjecto* involved in the following phrases:—*τρίπους τράπεζα*, a false verdict, a steel cuirass, rather late, an erroneous etymology, a corn chandler.

ENGLISH LANGUAGE.—*Examiner, Professor Moffett*, LL.D.

1. Mention the principal branches of the Aryan family of languages; and describe the evidence by which the affinity of these languages is proved.

2. What evidence have we that the inhabitants of the British islands were Celts before the commencement of the Christian era?

3. During the Anglo-Saxon times four languages were used for literary communication in the British islands; name them, and the principal literary productions of the period.

4. What evidence have we that Ireland was for some ages during this period the chief seat of learning in Europe?

5. Describe the four schemes according to which the history of the English Language in its entire extent may be methodized.

6. State the comparative advantages of a Synthetic and an Analytic language.

7. How do you account for the remarkable divergence of the Langue d'Oc and the Langue d'Oyl? At what dates, and under what circumstances, were these dialects introduced into England?

8. Explain the *way in which* the Norman Conquest appears to have acted in breaking down the system of the English tongue.

9. Who is the earliest recorded writer of French verse? Who is the earliest writer of English verse subsequent to the Conquest that deserves the name of poet?

10. Give an account of the Ancren Riwle; or of the Vision of Piers Ploughman. *Appendix, No. 2.*

11. The state of international relations about the middle of the fourteenth century precipitated the decline of the French language in England? What is the first instance of the English language in the Parliamentary proceedings? Sessional Examinations.

12. Show that the reign of Edward the Third was not more remarkable for its military triumphs than for its intellectual superiority in various departments.

13. By whom, and when, was the first book printed in England?

14. Who was the first English Prose writer; and what was the subject of his work?

15. Give the date and an outline of Chaucer's great work. The plan seems to be a great improvement on its supposed model?

16. Give Aristotle's definition of Tragedy; and show how it is exemplified in the characters of Macbeth and Lady Macbeth; quoting the most striking and significant passages.

17. Explain the following words, quoting in each case the context:—fantastical, metaphysical, convinces, aroint, weird, foisons, shard-borne, intrenchant, memorize, limited, affear'd, fee-grief.

18. What internal indications have we of the time when the tragedy was written?

19. Assign derivations for the following words:—prose, palfrey, dunce, tariff, topaz, harbinger, limner, church, gazette, assassin, alms, idyl.

20. Explain and illustrate the saying, that "Language is Fossil Poetry and Fossil History."

HISTORY.—*Examiner, Professor Moffett*, LL.D.

I.—1. The physical configuration of Greece exercised an important influence upon the political destinies of the people? How did the *patriotism* of an ancient Greek differ from that of a modern Englishman?

2. What historical authority do we possess for "the return of the Heraclidae"? What date is assigned for that event?

3. What was the essential principle of Solon's constitution? There are reasons for doubting the authenticity of the narrative of his interview with Crœsus?

4. Describe the character of Pericles, and his political position at the commencement of the Peloponnesian War.

5. What was the era of the greatest power and prosperity of Athens?

6. The introduction of Grecian Philosophy into Rome is commonly attributed to three Greeks who were sent thither as political envoys. State the time and the object of their mission.

7. How many of Creasy's Fifteen Decisive Battles of the World belong to the history of Greece?

II.—1. What constitutes the essence of the history of Rome as distinguished from that of Greece?

2. Who were the earliest of Roman historians, and when did they live? Who was the first Roman historian that composed in his own language?

3. What state documents, or other sources of reliable information, were accessible to Livy, and how far does he appear to have availed himself of them?

Appendix, No. 2.

Sessional Examinations.

4. Trace the origin and progress of critical investigation into the credibility of early Roman history. Cornewall Lewis seems to have fixed rather too low a terminus of legitimate historical research?

5. Trace the steps by which the Plebeians acquired the same privileges as the Patricians. By what measures may the equalization of the orders be said to have been completed; and when, and by whom, were they enacted?

6. What remarkable anomaly do we find in the Roman constitution with respect to the seat of Legislative power? What prevented the conflicts which might have been expected to arise from this cause?

7. What was the grand and cherished aim of Julius Cæsar's policy when he had attained supreme power? Enumerate the measures by which he sought to achieve it.

III.—1. What was the occasion, and what the object, of the compilation of Domesday Book? What parts of England were excluded from this book, and what were the reasons of this exclusion?

2. Examine and illustrate the following statement:—"During the hundred and sixty years which preceded the union of the Roses, nine kings reigned in England. Six of these nine kings were deposed; five lost their lives as well as their crowns."—*Macaulay.*

3. Trace the progress of liberty as defined in Magna Charta, the Confirmation of the Charters, the Petition of Right, the Act of Habeas Corpus, and the Bill of Rights.

4. By whom, and in what year, was Ireland annexed to the English Crown?

5. By whom, and in what year, was Wales annexed to the English Crown?

6. Hallam says:—"What the Revolution did for us was this: it broke a spell that had charmed the nation."

(*a*). What was the spell?

(*b*). How did the Revolution break it?

7. How is Queen Victoria connected with the house of Plantagenet?

SENIOR LOGIC CLASS.—*Examiner, Professor Moffett,* LL.D.

1. Kant's definition of Logic proceeds upon a distinction which is, both psychologically and logically, untenable?

2. With what theories as to the nature of Mathematical and Moral Science is that definition of Logic connected which extends its province to Evidence generally?

3. State Plato's specific contributions to Logic.

4. What processes does Mill designate "Inferences improperly so called"? Other logicians dissent: on what grounds?

5. Prove that the rules of the different kinds of Opposition are not independent of each other.

6. From what kind of Proposition by means of the Relative Affections may the greatest number of inferences be drawn? Draw up a table of these.

7. Prove, without reference to the Special Rules, that no legitimate Syllogism can violate both the rules of the first Figure. How did the Schoolmen endeavour to legitimate A E O and I E O in this Figure?

8. Prove that O cannot be the Major unless in the third Figure; nor the Minor unless in the second.

9. Given the Major or Minor premise particular in the fourth Figure; find the Modes, respectively.

10. Discuss the saying, that "it is difficult to prove a Negative."

11. It has been proposed to reduce Baroko and Bokardo *ostensively*; exemplify the process in both cases. The proposed nomenclature seems inadequate?

12. By what argument does Hamilton endeavour to maintain his theory of the "Quantification of the Predicate?" How does Mill criticise this theory?

13. Write down in Hamilton's Notation the Modes ordinarily received in the first Figure.

14. Have the great discoveries in Natural Philosophy been made by *Reasoning?* Examine Plato's theory of Reminiscence, and Clarke's Theistic argument.

15. Give an account of the Method of Residues; and show its scientific value.

16. Examine Whewell's reasons for questioning the utility of Mill's Experimental Methods.

17. Define and exemplify what is meant by "*Heteropathic* laws of Mind."

18. Give Mill's account of the Deductive Method; and exemplify its application to Mental and to Social science. When may Physical science become deductive?

19. Show distinctly what is meant by an Analogical argument; in what it differs from a real Induction; and how the value of such an argument is to be measured. What constitutes the scientific importance of considerations from Analogy?

20. How does the consideration of Hypotheses enter into the Logic of Science? Point out their importance. Bacon explicitly recognises their value?

LOGIC.—*Examiner, Professor Moffett,* LL.D.

1. Define Truth, Credibility, Knowledge, and Reasoning.

2. Prove, and illustrate by examples, that I, E may be converted *simply:* A, E *by limitation:* and O, A *by negation.*

3. Prove the rules of Contrariety and Sub-contrariety from those of Contradiction.

4. Give Aristotle's definitions of Syllogism, Induction, and Enthymeme.

5. Enumerate and criticise the different formulas that have been propounded for the fundamental axiom of Syllogism.

6. Give a general classification of Syllogisms with respect to their Form—internal and external.

7. How many more Universal or Particular terms can be in the Premises than in the Conclusion?

8. Prove that, if the Minor premise of a Syllogism be negative, the Major must be universal; and that, if the Major premise be I, the Mode must be affirmative.

9. Prove that no Syllogism in the fourth Figure can be correct which has a Particular Negative among its Premises; or a Universal Affirmative for its conclusion.

10. Prove that the Modes A E E and I A I are invalid in the first Figure; and I E O in all the Figures.

Appendix, No. 2.

Sessional Examinations.

11. State the following arguments in Syllogistic form; pointing out the Major, Middle, and Minor Terms, and the Mode and Figure :—

(*a*) "Lias lies above red sandstone: red sandstone lies above coal; therefore lias lies above coal."

(*b*) "It is a mistake to suppose that the rents paid to landlords are a burden on the public, since corn would not be more plentiful or cheaper if they were abolished."

12. What is the conclusion from the following premises :—

"Two-thirds of the army were Prussians;
Two-thirds of the army were slaughtered"?

Reduce the reasoning to the Dictum de Omni.

13. Give concrete examples of the Reduction, both *ostensively* and *ad impossibile*, of a Syllogism in the second Figure, and of one in the third Figure; and prove the conclusiveness of both processes.

14. State and prove the rules of the Sorites.

15. Give a general classification of Fallacies. Distinguish Petitio Principii from Arguing in a Circle. Define and exemplify the Fallacy of Composition.

16. State the rules of Division. Subdivide three times "Rectilinear Figure."

17. Enumerate and define the Predicables; and point out the use of this classification.

18. Define Probability and Chance; and state and illustrate the two methods of combining probable arguments. What is the difference between the ancient and the modern conception of Chance?

19. Give a brief historical and critical account of the controversy respecting Realism.

20. Name and characterize the members of "the Pentarchy of Scholasticism," adding dates.

Engineering Students of the Third Year.

Practical Mechanics.—*Examiner, Professor Curtis*, LL.D.

1. Establish the formula for determining the amount of work done in raising a given quantity of water from one reservoir to another, the dimensions and positions of the two reservoirs being known.

2. When a pump, whose modulus is m, worked by a waterfall, the height of which is h, is used to pump water to a height, H, above the upper level; the following formulæ holds for x, the ratio of the quantity of water raised in a given time to the total flow available in the same time, $x = \frac{m\,h}{H + h}$, $x = \frac{m\,h}{H + m\,h}$, according as the water is pumped from the lower or higher level.

3. State the principle by which Tate determines the *shut off* for maximum useful effect, point out the defect in his method, and show how to rectify it.

4. Why is not Mariotte's law applicable to steam used expansively?

5. Define the centres of *oscillation*, of *gyration*, and of *percussion*, and show how to find them.

6. Find the moment of inertia of the rim of a wheel round the axle.

7. Establish the following formula for the work accumulated in Poncelet's wheel :—$U = \frac{2\,W}{g}(V - v)v$.

8. Find the ratio of the velocity of the piston to that of the crank :— *Appendix, No. 2.*

(*a*) In the case of the fixed cylinder.
(*b*) When the cylinder is oscillatory. Sessional Examinations.

And find, in the second case, the expression for the ratio of the angular velocity of the cylinder to that of the crank.

EXPERIMENTAL PHYSICS.—*Examiner, Professor Curtis,* LL.D.

1. How may the expansion of liquids by heat be proved, and how may the coefficient of expansion be calculated?
2. Mention a peculiarity respecting the freezing of saltwater, and also concerning the ice formed from it.
3. Describe the construction and mode of using the safety tube.
4. Define specific heat, and explain how it may be determined.
5. What is meant by latent heat of fusion? how may its amount be estimated?
6. Explain the principle of the syphon, and account for there being a limit to its height.
7. How is the rotation produced in Barker's mill?
8. Find the reading on Reaumur's, and the centigrade thermometer corresponding to 65° Fahrenheit.
9. What is the use of the metallic coatings in a Leyden jar?
10. When a jar is charged by being held near to the prime conductor of an electrical machine, what occasions the spark between the conductor and the knob of the jar?
11. Describe the electrophorus, and the mode of using it.
12. How may gunpowder be exploded under water by means of a galvanic battery?
13. Mention some experiments by which the action of a galvanic current on a magnetic needle may be exhibited.
14. What distinguishes a magnetic pole on the earth's surface?

Honors.

1. State the true law for the conduction of heat by metals.
2. When specific heat is determined by the method of mixtures, what corrections must be applied?
3. What assumptions are made in determining specific heat by the method of cooling?
4. The reflecting power of a surface is sometimes increased, and sometimes diminished by scratching it; account for this.
5. How may it be proved that sound is accompanied by vibrations?
6. When a quantity of water whose temperature is below freezing point is agitated it becomes *partly* frozen; account for this, and determine how much is frozen?
7. Define a ray of light on the undulatory theory.
8. What relation exists between the polarizing angle of an *ordinary* medium, and its index of refraction? Hence deduce Brewster's law.
9. Give the formula which combines all the laws respecting Newton's rings, giving the proof of it.
10. Show how the magnetic dip may be accurately formed by reversing the poles of a dip needle, and deduce the formula for computing it.

Appendix, No. 2.

Sessional Examinations.

11. Describe the construction and mode of using Gauss' Magnetometer, and give the law by which it measures the variation in the earth's magnetic intensity.

12. Give the formula for determining the mode of connecting a given number of cells, so that the intensity of the voltaic current may be a maximum.

Medical Students.

Materia Medica.—*Examiner, Professor M'Coy,* F.R.C.S.I.

1. What characters and compounds have *all* the alkalaids in common?
2. Enumerate the officinal medical agents derived from the *animal* kingdom, that are not used merely as accessories.
3. What are the officinal parts of scammony, krameria, scilla, podophyllum, and uva ursi?
4. For what purposes in medicine may glycerine be employed with advantage?
5. What are the average doses for adults of strychnia in hemiplegia—of pulvis galapod comp., as a hydrargyrum cathartic—of tinct. hyoscyami as a calmative—and of arsenious acid as an anti-periodic?
6. Which of the officinal cinchonas contains the largest proportion of quinia?
7. What objections would there be to combining sulphas zinci and acetas plumbi together in solution as an astringent collyrium?
8. By what is the officinal carbonas lithiæ distinguished from other alkaline salts, and how is its metallic base distinguished from all other metals?

Medical Jurisprudence.—*Examiner, Professor M'Coy,* F.R.C.S.I.

1. Explain the terms asphyxia, stupor, typhomania, and syncope, as employed in cases dealt with in medical jurisprudence.
2. In applying what is called Marsh's test for the detection of arsenic, what modification of its principle would be advantageous if much animal matter, not easily separable, be mixed with the poison?
3. Under what circumstances would the absence of frothy mucous in the trachia and bronchi give no material evidence against the probability of death from drowning?
4. Are any of the conditions in the legal definition of rape essential to establish the *corpus delicti;* what medical evidence must be substituted or superadded? (Briefly.)
5. Describe the dialysing instrument; how used. State what class of substances are discernible by the process of dialysis.

PRIZE EXAMINATION.—SESSION, 1864–65.

Zoology.—*Examiner, Professor Melville,* M.D.

1. State the characteristics of the Cœlenterata; mention the principal divisions and their essential characters.
2. Give a sketch of the anatomy of a star-fish.
3. Give a sketch of the development and transformations of a nematoid worm.

4. Give a similar sketch of the development and transformations of a cestoid worm.

5. State the sub-types of the Crustacea, and their principal characteristics.

6. Describe the structure of the mouth in Hymenopterous, Lepidopterous, and Dipterous insects.

7. Give a tabular view of the classification of the Mollusca, stating the principal characters of the major groups.

BOTANY.

1. Define the terms :—Cambium, Stolo, Pedunculus, Endospermium, Arillus, Putamen.

2. Give a tabular view of the natural classification of plants, and mention the characteristics of the major groups.

3. Describe the structure of the flower in grasses.

4. State the characters of the natural orders :—Umbelliferae, Labiatæ, Orchidaceæ.

5. Describe in technical terms the plants:—Nos. 1 and 2.

GEOLOGY.—*Examiner, Professor William King.*

1. Write out in a column a table of the various *rock systems* in the order of their succession; add another column giving the subdivisions or formations.

2. Name any districts in Ireland in which the *systems* are well represented.

3. Write out a table of the various *kinds* of rock, separating them into groups (in columns) according to the way in which they have been formed.

4. Describe quartz.
5. Describe felspar.
6. Describe mica.
7. Describe calcite.
8. Describe pyrites.
9. Describe hornblende.
10. Describe granite.
11. Describe porphyry.
12. Describe mica schist.
13. Describe serpentine.
14. Describe limestone.
15. Describe sandstone.
16. Describe slate rock.
17. Describe the origin of metamorphic rocks.
18. Describe the origin of aqueous rocks.
19. Describe the origin of igneous rocks.

In answering the three last questions illustrate your views as far as you can by references to existing phenomena in physical geography.

20. Give descriptions and examples of strike, dip, a syncline, an anticline, conformability and unconformability in stratification.

Appendix, No. 2.

Sessional Examinations.

CHEMISTRY.—*Examiner, Professor Rowney,* PH.D.

1. Give the composition of the atmosphere, its properties and uses.
2. What compound is formed when the diamond is burnt in oxygen gas?
3. Mention the principal constituents of coal gas.
4. Describe the method of preparing, and the properties of hydrogen gas.
5. What is meant by capillary attraction?
6. What compounds are produced when an excess of chlorine gas is passed into a solution of caustic potassa?
7. What is meant by an elementary body?
8. Give the composition and properties of starch.
9. Give the laws of combination by weight and volume.
10. What is meant by isomorphism?
11. What is the composition of the salts called alums?
12. Give an explanation of the terms specific and latent heat.

DUBLIN: Printed by ALEXANDER THOM, 87 & 88, Abbey-street,
For Her Majesty's Stationery Office.

THE REPORT

OF THE

[redacted]

THE YEAR ENDING MARCH 31, [redacted]

Presented to both Houses of Parliament by Command of Her Majesty.

PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

Vol. XXVIII
[c. 3657]

9/4/62
To be returned to
H.M.S.O. (I.T.W.)
for Controller's Library
Bundle No. 2C
1866

REPORT

ON

THE CONDITION AND PROGRESS

OF THE

QUEEN'S UNIVERSITY IN IRELAND,

FOR THE YEAR 1865-66.

BY

THE RIGHT HON. MAZIERE BRADY,
VICE-CHANCELLOR OF THE UNIVERSITY.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.
1866.

[*Price* 1½*d.*]

365/C3654

CONTENTS.

	Page
REPORT,	3
APPENDIX:	
I. Report of Public Meeting of the Queen's University in Ireland, held in St. Patrick's Hall, Dublin Castle, on 11th October, 1865,	5
II. Degrees, Certificates, and Honors,	10
III. Estimate of the Sum required to defray the Expenses of the Queen's University in Ireland for the year ended 31st March, 1866,	18
IV. Cash Account of the Queen's University, for the Year ended 31st March, 1866,	18
V. Meetings of the Senate,	18

REPORT.

TO HIS EXCELLENCY JOHN, BARON WODEHOUSE,

LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

Queen's University, Dublin Castle,
March 31, 1866.

May it please your Excellency,

In the absence of the Earl of Clarendon, Chancellor of the Queen's University in Ireland, it becomes my duty as Vice-Chancellor, in compliance with the provisions of Her Majesty's Charter, to furnish to your Excellency the Report of the Condition and Progress of the University since the 1st April, 1865.

The General University Examinations during the period of this Report commenced on the 26th of September, and terminated on the 23rd of October. Examinations for Degrees in the Faculty of Medicine were also held in June, and First University Examinations in Arts and Engineering were also held in May. At these various Examinations 285 Candidates presented themselves. Lists of those who were successful are annexed, and a List of the Students Matriculated in the University since the first of October last. App. II.

In addition to these Examinations for Members of the University, Examinations of Candidates who are not Members were held in the month of June. Twenty-eight Candidates presented themselves for the Certificates awarded at these Examinations. Lists of those who were successful are annexed. App. II.

The principal public meeting of the University, to confer degrees and diplomas, and distribute prizes, and which your Excellency was pleased to honour with your presence, was held in St. Patrick's Hall, Dublin Castle, on the 11th of October last. An account of the proceedings is appended to this Report. App. I.

The following papers are also annexed for your Excellency's information:—

App. III. The Estimate for the year.

App. IV. The Cash Account for the year.

App. V. A Return of the several Meetings of the Senate since my last Report.

I have the honour to be
Your Excellency's
Obedient and faithful Servant,

MAZIERE BRADY,
Vice-Chancellor.

APPENDIX.

Appendix I.

Public Meeting of the Queen's University in Ireland, held in St. Patrick's Hall, Dublin Castle, on the 11th October, 1865.

After the close of the examinations of the year 1865, a public meeting of the Queen's University was held in Dublin Castle, on the 11th October, 1865, for conferring degrees, diplomas, and prizes.

A large number of distinguished persons having taken their places in the Examination Hall, the Vice-Chancellor and Senate of the University, the Professors and Examiners, and the Candidates, entered it in procession.

The Vice-Chancellor opened the meeting with the following address:—

At our last annual meeting in 1864, to confer the degrees and honors of the Queen's University in Ireland, I had the satisfaction of announcing that it was distinguished by the attendance of a larger number of successful candidates for those distinctions, than had ever appeared before us on any former occasion. At the present meeting I am enabled to state, that, although not in a very high proportion, still the numbers of the current year exhibit on the whole an increasing body of the students to be admitted to University degrees, and to have conferred on them the University diplomas. Thirty-two students have become admissible to the degree of Doctor in Medicine, of whom eleven were admitted to the degree at the meeting of the Senate in the month of June, and the remaining twenty-one are to be admitted to-day. Fifty-nine medical students have passed the first University examination in Medicine. Fifteen Bachelors of Art have passed the examination for the degree of Master, and fifty-six students, the largest number yet admitted in any year since the establishment of the University, have qualified for the degree of Bachelor in that faculty. One Graduate of the University has obtained admission to the degree of Doctor, and two to that of Bachelor of Law. The degree of Master in Surgery is to be conferred on twenty-four members of the University, thirteen of whom had on former occasions obtained the degree of Doctor of Medicine. Fifty-two have passed the first University examinations in Arts, seven have been found qualified to obtain the diploma in Engineering, nine have passed the first examination in that profession, and one has passed for the diploma in Elementary Law.

The middle class examinations instituted by the University for young persons not connected with the Queen's Colleges were held in the month of June last, and attended by twenty-eight candidates, of whom seventeen were found sufficiently instructed to pass the examinations.

I noticed also on the last occasion a continual increase in the number of students in attendance on the several classes in the Queen's Colleges in the academic year then past; they amounted to 810. In that which now closed there is an increase of twenty-five, making the number of collegiate students, in the session of 1864-65, 835—more than double the number attending ten years since—viz., in the corresponding session of 1854-55.

It may be illustrative of the progress and great educational importance of the Queen's Colleges and the University to notice, by way of summary of their history, that the total number of the students who have entered the Colleges since the opening has been 3,330; and that the University

Appendix. I. Public Meeting.

since its first public meeting, inclusive of those to be conferred to-day, will have conferred 248 degrees of Doctor of Medicine, 108 of Masters of Arts, and 424 of Bachelors of Arts, besides a large number of diplomas in Engineering and Law. Two *ad eundem* degrees are to be granted to Graduates of other Universities—one of Master of Arts to Professor England, of Cork, a Graduate of the University of Dublin; and one of Bachelor of Laws to a Graduate in Arts of this University, who has taken the same degree in the University of London.

Among the students of the colleges and the graduates of our University, several during the past year have competed successfully at the examinations for the Public Service. I am not sure that the list furnished to me is quite perfect. It mentions the names of graduates or students who have been successful at important competitions since last public meeting. At the Indian Civil Service competition of last June, Mr. Marcel, of Queen's College, Cork, got, I believe, the eighth place; Mr. Evans, of Queen's College, Cork, the ninth place; Mr. Sharkey, of Queen's Colleges, Belfast and Galway; Mr. M'Minn, of Belfast, and Mr. Weir, of Belfast, were also successful. Mr. John Campbell, of Queen's College, Belfast, obtained the first place at a competition for the Indian Engineering Service. Mr. Odling, of Queen's College, Galway, also obtained an Indian Engineering appointment. Mr. King, of Queen's College, Galway, obtained a Ceylon Writership. Mr. O'Brien, of Queen's College, Cork, obtained a Chinese Interpretership. Mr. Mulholland, of Queen's College, Galway, got the first of the prizes recently offered by the Benchers of the King's Inns, Dublin, to young men proceeding to the Bar. Messrs. Parke, Leebody, and McGaw, of Queen's College, Belfast, were respectively appointed to the Professorships of Belles Lettres, Mathematics, and Metaphysics, in the Magee College at Derry. Mr. M'Donnell, of Queen's College, Galway, has passed the further examination for Indian Writerships; and Mr. Russell, of Queen's College, Belfast, was successful at a competition for a Hong-Kong Cadetship.

Besides these, many were successful in minor competitions, such as the Medical Appointments of the army, navy, or Indian Services. Mr. Beamish, who is taking his Master of Arts degree to-day, and Mr. Porter and Mr. M'Kean, who are taking their Bachelor degree, have last week been examined for three Chinese Interpreterships. The result of the competition is not yet known, but I hope to hear of their success.*

The annual exhibitions founded for students of our Colleges by the munificence and exertions of Sir Robert Peel, have all been successfully competed for by many of the students who take degrees at the present meeting.

I regret to say that since their last annual assembly, the Senate has lost the valuable services of one of its members, by the lamented decease of Robert Andrews, esq., Doctor of Laws, a gentleman of eminence in his profession, of the most enlightened public principles, and a zealous advocate for the diffusion of sound education among all classes of the community—principles and views which he practically acted on, and carried out as well in the Senate of the Queen's University as at the Board of National Education, of which he was for many years a zealous and most useful Commissioner.

Having on many former occasions of similar meetings entered fully into the history, origin, constitution, and progress of the University and of the Queen's Colleges, with which it has been from the first connected, I feel it would be an unnecessary occupation of time were I now again to go over the same ground, or recount the same particulars. The published

* The result of the competition has since been announced. Two of the three candidates from the Queen's University have been successful; Mr. M'Kean was awarded the first of the three vacant Interpreterships, and Mr. Porter the third.

reports of the proceedings exhaust the subject so far as regards my power of illustrating it, and I must content myself on this occasion with the enumeration I have given of the practical results of the education provided for the students of the Colleges and the periodical examination carried on under the supervision of the Senate. As Vice-Chancellor of the University, I have only to deal with the present and refer to the past; and in this retrospect I feel happy in the reflection that these institutions have borne good fruit in the labour of instruction, have helped and sustained numerous classes in their career of learning, and sent forth many an able and well taught public officer to the service of the State in every region of the British empire.

I now proceed, in the absence of our Chancellor, the Earl of Clarendon, to admit our successful candidates to their respective degrees, and to present to those who have deserved them the diplomas of the University. His Excellency the Lord Lieutenant having honoured our meeting with his presence, has kindly acceded to my request, that he would deliver to the successful competitors for honors, the medals and prizes which have been awarded to them.

The degrees, diplomas, certificates, and prizes were then conferred.

The ceremony having concluded, the VICE-CHANCELLOR said—

I have now but to discharge the very agreeable duty of expressing to your Excellency the cordial thanks of the Senate and Graduates of the University, as well as of the Presidents, Vice-Presidents, Professors, and Students of the Queen's Colleges, for the honour you have conferred upon us by your presence on this occasion, and the part you have been pleased to take in the programme of our proceedings. From the first our annual assemblies have been thus honoured by the successive representatives of her Majesty, and we rejoice in the assurance your Excellency gives by your appearance on this the first occasion of our meeting since you have been intrusted by our gracious Sovereign with the administration of the government of Ireland, that you look on these institutions with the same good feelings and wishes for their success which they so often expressed, and take an equal interest in the most extensive diffusion of free and sound education among all classes of the community. We trust that the proceedings of the day have been as gratifying to your Excellency as your encouraging presence has been to us.

His Excellency the LORD LIEUTENANT addressed the assembly in the following terms:—

My Lord Chancellor, Ladies, and Gentlemen, I can assure you that if it has afforded to you any satisfaction that I should be present on this occasion, it has afforded me sincere satisfaction to be personally witness of the distribution of the honors to the candidates at your annual examination, and to see the proofs that this institution has met with so much success. My Lord Chancellor, you, in the statement which you laid before us, acquainted us with the cheering fact that the number of students in the Queen's Colleges connected with the University not only is maintained, but somewhat increased; and from the examination which I have had an opportunity of making of the reports presented in due course from the three Queen's Colleges, I find that in the Belfast College there has been a considerable increase in the number of students attending lectures. In Galway, notwithstanding great difficulties, the numbers are still maintained at least; and in Cork—though I do not so clearly see from the report of my friend, Sir Robert Kane, what is the precise state of that institution—I suppose I may conclude that there has not been any falling off.

Appendix. I. Public Meeting.

Now, this success must be most encouraging to those who, through many difficulties and in the face of much opposition, founded and supported these institutions. Much opposition they had to encounter, but at the same time I think they have met with a very fair share of public favour, and I have no doubt that they have established themselves in this country as useful component parts of the educational system of the land. My Lord Chancellor, the opposition which has been made to these Colleges has arisen in great part from the conscientious objections which are entertained by some persons to a system of education which is not directly connected with religious teaching. And so far do some who entertain these objections carry their views, that I have even met with the statement that it is so important to divorce secular from religious teaching, that it would even be improper that mathematics should be taught in an institution where they were not—though I know not how it could be—connected with religion; because it would be an error to suppose that the certainty which is produced by the study of mathematics, differs in any respect from the certainty which can be obtained in the other subjects of human study.

Now, I think that statement is in itself a *reductio ad absurdum* of that theory. But, my Lord Chancellor, although the success of this institution has been undoubted, you are perfectly aware, from statements that were made in Parliament, and which are known to you all, that the Government have had under their consideration a plan for extending, and in some degree modifying the University, so as to afford the benefit of its degrees to those who have not been educated in the Queen's Colleges.

Now, you would not expect from me, and it would be exceedingly improper were I to commit such an indiscretion as to enter upon that difficult question, more especially as the matter is under the consideration of the Government, and it would, therefore, be impossible for me to give any detail of the plan that may be ultimately proposed; but this I will say—that, whilst I am as strong an advocate of united education as any whom I see around me, and whilst I believe that the benefits of united education are specially felt in this country, where, unfortunately, dissensions arising from religious differences have produced such evils, yet I think the genius of our institutions and the principle of our Government require that we should not refuse the advantages of academical degrees to those who from conscientious convictions, decline to accept the system of mixed education, who wish for them. That is the sum and substance of the principle which animated the Government in coming to the conclusion that some change is necessary; and for my part, so strongly do I feel on that point that I think it is only necessary to state that principle, and to acknowledge the fact that there are some, even though they are not many, who are debarred by the present state of things from the advantages of an academical degree, for all reasonable men to conclude that some change is demanded. But I trust, and, as far as I have influence in the matter, I shall promise that every effort shall be made that this institution, and the Queen's Colleges connected with it, shall not be injured by any change that may be effected. Deeply should I deplore if that should be the consequence, because we have before us now a number of students who have been educated here together, notwithstanding that they may hold different religious opinions.

We have in the statement laid before us the proof that so much have these institutions been appreciated by the people of Ireland, that a very considerable number of students has passed through them, contributing a large body of educated men; and it would be, indeed, unfortunate, if after seeing that so much care and trouble were expended, we should by any means be prevented from reaping the harvest. What is the harvest?

The harvest is, that those who have gone forth from these institutions promote greater harmony amongst the different classes of the community and unite with them by a bond of union those who have received a higher education in this country, whereby we may see arising a sound and enlightened public opinion, which can be brought to bear in this country upon the various difficult questions which perplex those who wish well to its prosperity. There is no country, I am convinced, in which the advantages of an academical education are more appreciated than in Ireland, or where they are more needed. Not only are they of advantage in an academical point of view, from the better tone and the aid it gives to the mind, and opening the mind to new branches of knowledge, but it has also another advantage which is not to be despised—namely, supplying the means of entering upon the great careers now open to those who have distinguished themselves in the various competitions for public offices in the empire; and Irishmen have shown in a marked manner that when they have an opportunity they can in these competitions take high places.

I know nothing more calculated to bind this part of the empire to the rest, than that the youth of this country should have ample opportunity of entering upon these competitions, and of obtaining the prizes which they offer, and engaging in that great public service which, more than any public service of any nation in the world, I say it without fear of contradiction, embraces the largest and widest scope for noble distinctions and for useful labours.

I have heard to-day that some of your students have been successful in the Indian examination; and where can there be a finer field for exertion than is afforded by our Indian Empire? I heard also with pleasure that some others are candidates for the service with which I had formerly some knowledge when connected with the Foreign Office—namely, students for the office of Interpreter of Chinese. This is a service which offers considerable opportunities for distinction. I know from my experience there is no service which more demands men of steady, intelligent minds, and that it leads to high distinction you may see in the fact that one man who entered that service—I mean Sir Richard Alcock—has been appointed to the office of Minister at Pekin; and another, Sir Harry Parkes, having distinguished himself in various affairs during the Indian war, is now Minister for Japan. You see in all these departments, whether in the Indian or any other foreign service, you have opportunities of entering upon, in common with your countrymen all over the Empire, the race of excellence and distinction.

But these advantages cannot be obtained without sound academical instruction; therefore, looking at it from an academical point of view, it is necessary that it should be maintained, and, if needs be, extended.

My Lord Chancellor, I do not know that it occurs to me to add much more on this subject, interesting though it may be, because it has been so often and so much better touched upon by my predecessors in this place. I am glad that several very interesting additions are likely to be made, especially to the College of Belfast. A short time ago I had the great satisfaction of visiting, though for a brief period, that noble college, and I saw with much pleasure that a new building was about to be added for giving further facilities for anatomical education. That shows the Government was not during the past year neglectful of its duties in connexion with these Colleges.

There is another point connected with this University upon which I feel a strong opinion, and upon which I hope Her Majesty's Government will be induced to yield to the wishes of all those connected with the Queen's Colleges: I mean that the Queen's University should have a building which would give it, so to say, "a local habitation and a name,"

Appendix. I. Public Meeting.

which will impart far more dignity to it than by being the guest of myself on this occasion. I am happy to see you here, but I should be very glad, indeed, were I to be your guest, and that you could receive me in a building belonging to yourselves.

I will only add one word. I believe it to be usual to say something to those who have been successful in these competitions. I cannot doubt for a moment that their success has given them and their friends the greatest pleasure, at least if I can judge at all from the feeling experienced in my own time, when we passed successfully through our University examination. But when the pleasure of the moment is passed, I beg of them to consider that they have only entered upon the threshold of their career, and that what they have obtained is only an instrument for acquiring more profound knowledge. The education of a man really only commences, so to speak, when he leaves the University; and if you take advantage of the foundation that has been so laid by the instruction received here, you will, I have no doubt, become most valuable members of the community. And let me say to you—and I do so with utmost sincerity—that in this country, young men belonging to the class from which you come, have responsible positions to hold, because, unfortunately, in Ireland, hitherto we have not had a united public opinion brought to bear on the various questions that perplex us. It is for young men going forth from the University, enlightened by the education they have received, to look at the questions of the day, as young men do look at them, with fresh, and I hope with honest minds, to assist those who are older in endeavouring to bring, as I believe they can be brought, to a conclusion, the many difficult questions with which we have to contend.

The proceedings then terminated.

Appendix II.

II. Degrees, Certificates, and Honors, 1865.

Degrees, Certificates, and Honors conferred in 1865.

Degrees.

The Degree of LL.D.

Names.	College.
Bellis, Samuel Arrott, M.A.,	Belfast.

The Degree of M.D.

FIRST CLASS.—None.

SECOND CLASS.

Bolton, Reuben,	Belfast.
Charles, John James,	Belfast.
De Zouche, Isaiah,	Galway.

THIRD CLASS.—None.

UNCLASSED.

Alexander, William,	Belfast.
Ambrose, Daniel,	Galway.
Bligh, John,	Galway.
Brown, Henry John,	Cork.
Buckley, Cornelius F.,	Cork.
Chestnut, Joseph Wallace,	Belfast.
Comerford, Henry,	Galway.
Catherwood, Wm. Alister,	Belfast.
Filson, Alexander, B.A.,	Belfast.
Fitzpatrick, Joseph Augustine,	Galway.
Gilmore, Thomas C.,	Belfast.
Heas, Patrick,	Cork.
Henry, Emerson,	Belfast.
Holden, John Sinclair,	Belfast.
Honiball, Oscar D.,	Cork.
Jenings, Ulick Albert,	Galway.
Johnstone, William B.,	Cork.
Long, Mark,	Cork.
Macartney, James,	Galway.
Madden, Henry J.,	Galway.
M'Crystal, Edward,	Belfast.
Millar, Samuel D.,	Belfast.
Newman, John Henry,	Cork.
O'Hara, Charles, B.A.,	Galway.
Rankin, William John,	Galway.
Ratton, Jas. Joseph Louis,	Cork.
Raye, Daniel O'Connell,	Galway.
Smith, David S. H.,	Belfast.

The Degree of M.CH.

Names.	College.
Bligh, John,	Galway.
Bolton, Reuben,	Belfast.
Charles, John James,	Belfast.
Comerford, Henry,	Galway.
Duffy, Francis, M.D.,	Belfast.
Fitzpatrick, Joseph Augustine,	Galway.
Graham, Richard Malcom, M.D.,	Cork.
Heas, Patrick,	Cork.
Henry, Emerson,	Belfast.
Honiball, Oscar D.,	Cork.
Jenings, Ulick Albert,	Galway.
Jones, H. M'Noughten, M.D.,	Cork.
Jones, Wm. Henry, M.D.,	Cork.
Joyce, Robt. Dwyer, M.D.,	Cork.
M'Gloin, Patk. F., M.D.,	Galway.
M'Murtry, Alex. Hay Hill, M.D.,	Belfast.
Millar, Samuel D.,	Belfast.
Morris, Michael O'Kennedy, M.D.,	Cork and Galway.
Mullen, Thos. Ffrench, M.D.,	Galway.
Newman, John Henry,	Cork.
O'Keeffe, Patrick, M.D.,	Cork.
O'Sullivan, Stephen, M.D.,	Cork.
Shannon, Ptk. John, M.D.,	Galway.
Sigerson, George, M.D.,	Cork and Galway.

The Degree of M.A.

FIRST CLASS.

Beck, John Fritz,	First in Experimental Science,	Belfast.
Cleeland, Robert,	First in Mathematical Science.	Belfast.
Dougherty, James Brown,	First in Logic, Metaph., and Pol. Economy,	Belfast.
Park, William,	First in Ancient Classics,	Belfast.
Scott, James Orr,	First in Logic, Metaph., and Pol. Economy,	Belfast.

SECOND CLASS.

Armour, James Browne,	Second in Ancient Classics,	Belfast & Cork.
Conolly, Patrick W.,	Second in Modern Languages,	Galway.
M'Clure, Edmund,	Second in Modern Languages,	Belfast.
Wilson, James Alex.,	Second in English, Logic, and Metaphysics,	Belfast.

THIRD CLASS.

Houston, Samuel,	Third in Logic, Metaph., and Pol. Economy,	Belfast.
Patton, Alexander,	Third in English, Logic, and Metaphysics,	Belfast.

UNCLASSED.

Arnold, William,	Belfast.
Beamish, James Maybury,	Cork.
Hare, Gustavus J. C.,	Galway.
Moody, George,	Belfast.

England, John, M.A., University of Dublin, *ad eundem.*

The Degree of LL.B.

FIRST CLASS.

Atkinson, John, ... Galway.

UNCLASSED.

Hamilton, William Ross, ... Belfast.

Kane, Robert Romney, LL.B., University of London, *ad eundem.*

The Degree of B.A.

FIRST CLASS.

Forsyth, Samuel,	First in Experimental Science,	Galway
Marcel, James Augustine,	First in Modern Languages,	Cork.
Moorhead, William R.,	First in Logic, Metaph., and Pol. Economy,	Galway.
Shaw, James Johnston,	First in Logic, Metaph., and Pol. Economy,	Belfast.
Smyth, William John,	First in Natural Science.	Belfast.
Wallace, John Beattie,	First in Experimental Science,	Belfast.
Wilson, Edward D. J.,	First in Classics, Second in Modern Languages, and Third in English, Metaphysics, and Political Economy,	Cork.

Appendix.

II. Degrees, Certificates, and Honors, 1865.

SECOND CLASS.

Names.		College.
Chambers, Robt. M'Crea,	Second in Classics,	Belfast.
Connor, John,	Second in Logic, Metaph., and Pol. Economy,	Cork.
Deane, Henry,	Second in Mathematical Science, and Second in Natural Science,	Galway.
Fleming, S. M'D. E.,	Second in Mathematical Science,	Belfast.
M'Donald, Francis,	Second in English, Logic, and Metaphysics,	Galway.
O'Conor, Wm. Frederic,	Second in English, Logic, and Metaphysics,	Belfast.
Winder, James,	Second in Modern Languages,	Galway.

THIRD CLASS.

Andrews, Samuel,	Third in English, Logic, and Metaphysics,	Belfast.
Chatterton, James,	Third in Experimental Science,	Cork.
Dann, Alfred George,	Third in Mathematical Science,	Cork.
Leitch, William,	Third in Classics,	Belfast.
M'Kenzie, John,	Third in Modern Languages,	Galway.
Wilson, William Nesbitt,	Third in Classics,	Galway.

UNCLASSED.

Brigham, John King,	Belfast.	Munro, John Henry,	Belfast.
Brown, James,	Belfast.	Neilson, Robert,	Belfast.
Buckley, Cornelius Fitz.,	Cork.	O'Callaghan, John,	Cork.
Burke, John,	Galway.	O'Conor, Bindon Blood,	Belfast.
Coulter, John,	Belfast.	Porter, Francis Knowles,	Belfast.
Crooks, William,	Galway.	Rentoul, Robt. W. Reid,	Belfast.
Dick, Robert,	Belfast.	Robinson, John,	Belfast.
Dooley, Michael Stanislaus,	Galway.	Scott, Charles,	Belfast.
Fleming, David,	Belfast.	Shepherd, William,	Belfast.
Graham, Thos. Saunders,	Belfast.	Simpson, Edward Fiddes,	Belfast.
Hemphill, John,	Belfast.	Stewart, Wm. Douthwitt,	Belfast.
Hill, William James,	Belfast.	Strain, David Alexander,	Belfast.
Houston, Samuel,	Belfast.	Stronge, William James,	Belfast.
Lindsay, John,	Cork.	Thompson, George,	Galway.
Love, James,	Belfast.	Topping, John,	Belfast.
M'Kean, Edward,	Belfast.	Waddell, John,	Belfast.
M'Kee, James,	Belfast.	Wallace, Wm. Dorrance,	Belfast.
Mullan, Robert Alexander,	Belfast.	Wilson, John,	Galway.

Diploma in Civil Engineering.

SECOND CLASS.

Perrott, William,	Cork.

THIRD CLASS.

Hill, Arthur,	Cork.

UNCLASSED.

Beresford, John Stuart,	Belfast.
Dooley, Michael Stanislaus,	Galway.
M'Carthy, Alexander P.,	Cork.
Odling, Charles William,	Galway.
Purdon, William,	Belfast.

Diploma in Elementary Law.

Keary, Flan James,	Galway.

Exhibitions founded by Public Subscription.

The following Exhibitioners have fulfilled the conditions which entitle them to the Second or Third instalments of their Exhibitions:—

Names.	Condition.	Exhibition Awarded.
Hare, G. J. C.,	M.A.,	October, 1862.
Park, William,	M.A.,	October, 1862.
Armour, J. B.,	M.A.,	October, 1862.
Cleeland, Robert,	M.A.,	October, 1863.
Shaw, James J.,	B.A. with Honors,	Octpber, 1863.
Wilson, E. D. J.,	B.A. with Honors,	October, 1864.
Wilson, W. N.,	B.A. with Honors,	October, 1864.
Perrott, William,	C.E. with Honors,	October, 1864.

First University Examination in Arts (Supplementary), April, 1865.

Names.	College.
Chambers, Robert M'Crea,	Belfast.
Knipe, Joseph,	Belfast.
Lindsay, John,	Cork.
Moloney, J. Cotter,	Galway.
O'Callaghan, John,	Cork.
Smyth, William J.,	Belfast.
Wallace, John Beattie,	Belfast.

The following Gentlemen have passed the First University Examination in Arts, October, 1865:—

With Honors.

FIRST CLASS IN ORDER OF MERIT.

Order of Merit.			
1	Newsome, James Clarence,		Belfast.
2	Smith, Hugh M'Laren,		Belfast.
3	Murphy, James Edward,		Belfast.
4	MacSwinney, Robert Forster,		Galway.
5	Hall, John Carey,	Equal,	Belfast.
5	Hewitt, John,	Equal,	Belfast.
5	Rogers, William,	Equal,	Belfast.
8	Burke, John,	Nearly equal,	Cork.
8	Hughes, William,	Nearly equal,	Galway.

SECOND CLASS IN ORDER OF MERIT.

1	Griffin, Thomas,		Galway.
2	Killen, John Moore,		Galway.
3	Mills, John William,	Nearly equal,	Cork.
3	O'Connor, Thomas Charles,	Nearly equal,	Galway.

THIRD CLASS IN ORDER OF MERIT.

1	Dick, William,	Nearly equal,	Belfast.
1	Drinan, Charles,	Nearly equal,	Cork.
1	Holmes, Robert A. K.,	Nearly equal,	Belfast.
4	Johnstone, William Murdoch,	Nearly equal,	Galway.
4	M'Callum, John,	Nearly equal,	Belfast.
4	Thompson, Isaac,	Nearly equal,	Belfast.
7	Dickey, David,	Nearly equal,	Belfast.
7	Greer, Thomas,	Nearly equal,	Belfast.
7	Hoctor, William Francis,	Nearly equal,	Galway.
7	Waddell, Hugh,	Nearly equal,	Belfast.

Without Honors.

Anderson, Walter,	Belfast.	MacAuliffe, Alexander,	Cork.
Archibald, William,	Belfast.	Mackenzie, Mat. B.,	Belfast.
Browne, David G.,	Belfast.	MacCracken, John Alex.,	Belfast.
Clancy, John Joseph,	Galway.	M'Cully, William John,	Galway.
Dale, A. Blair,	Cork	M'Kinstry, Joseph,	Belfast.
Ferris, James Caldwell,	Belfast.	Moffett, Samuel,	Galway & Belfast.
Fleck, James,	Belfast.		
Foley, John,	Cork.	Roche, Francis,	Cork.
Keenan, Michael,	Belfast.	Scott, James,	Belfast.
Lindsay, Francis William,	Cork.	Stewart, James,	Belfast.
Lough, William John,	Belfast & Galway.	Walsh, Thomas,	Galway.

First University Examination in Medicine.

THIRD CLASS.

Ryan, Thomas,	Cork.

Appendix.

II. Degrees, Certificates, and Honors, 1865.

UNCLASSED.

Names.	College.
Ambrose, Daniel,	Galway.
Anderson, Edward,	Galway.
Anderson, John Albert,	Belfast.
Baldwin, Henry,	Galway & Belfast.
Bolton, Reuben,	Belfast.
Browne, John Walton, B.A.,	Belfast.
Burke, Michael J., B.A.,	Galway.
Catherwood, Wm. Alister,	Belfast.
Charles, John James,	Belfast.
Collins, William,	Cork.
Cremen, Patrick J.,	Cork.
De Zouche, Isaiah,	Galway.
Dickson, James Reid,	Belfast.
Filson, Alexander, B.A.,	Belfast.
Fitzpatrick, Jos. Augustine,	Galway.
Frazer, James,	Belfast.
Gallwey, Mattw. Moriarty,	Cork.
Gibson, George John,	Cork.
Gilmore, Thomas C.,	Belfast.
Holden, John Sinclair,	Belfast.
Honiball, Oscar D.,	Cork.
Jefferson, John,	Belfast.
Johnstone, William B.,	Cork.
Killen, Samuel,	Belfast.
Kingston, Thomas,	Cork.
Macartney, James,	Galway.
Macaulay, John,	Belfast.
Macnamara, Wm. Henry,	Cork.
M'Clement, Frederick,	Belfast.
M'Crystal, Edward,	Belfast.
Madden, Henry J.,	Galway.
Millar, Samuel Dundee,	Belfast.
Morgan, Rosslewin,	Cork.
Morgan, Hickman,	Cork.
Nelson, Edwin F.,	Belfast.
O'Connor, John,	Cork.
O'Connor, Wm. Arthur,	Cork.
O'Grady, Jeremiah J.,	Cork.
Parke, Samuel,	Belfast.
Patrick, Josias W.,	Belfast.
Pemberthy, John Henry,	Belfast.
Power, Robert V., B.A.,	Cork.
Rankin, William John,	Galway.
Ratton, James J. L.,	Cork.
Ritchie, James Hutton,	Belfast.
Roche, John,	Cork.
Raye, Daniel O'Connell,	Galway.
Sharpe, William,	Belfast.
Smith, David Stuart H.,	Belfast.
Stoker, Wm. Thornley,	Galway.
Townsend, Edmond, B.A.,	Cork.
Warren, William Henry,	Galway.
Wood, George,	Cork, Galway, & Belfast.
Wylie, William,	Belfast.

First University Examination in Engineering (Supplementary), April, 1865.

Beresford, John Stuart,	Belfast.
M'Carthy, Alexander P.,	Cork.
M'Carthy, Philip W. Winspeare,	Cork.
Purdon, William F.,	Belfast.

The following Gentlemen have passed the First University Examination in Engineering, October, 1865:—

With Honors.

FIRST CLASS IN ORDER OF MERIT.

Order of Merit.			
1	Lynham, W. P.,	Almost equal,	Galway.
1	Wilson, James,		Belfast.
3	Wallace, John Beattie,		Belfast.
4	Jones, John H.,		Cork.

SECOND CLASS IN ORDER OF MERIT.

1	Haynes, Edward W.,	Cork.
2	Sanders, Richard B.,	Belfast.

THIRD CLASS IN ORDER OF MERIT.

1	Anglim, Samuel,	Nearly equal,	Cork.
2	Hannon, John,		Cork.
2	Macurdy, John,		Belfast.
2	Ring, Robert,		Cork.
2	Weldon, ——,		Cork.

Without Honors.

Forde, Patrick,	Cork.
Healy, William,	Cork.
Howe, James Percy,	Cork.
Martin, James Wentworth,	Cork.
Mulcahy, Peter,	Cork.

Exhibitions founded by Public Subscription.

Exhibitions have been awarded to the following Gentlemen at the First University Examination of the year 1865:—

I.—At the First University Examination in Arts.

Order of Merit.

1 Newsome, James Clarence, of Queen's College, Belfast—First Exhibition in his College, and the Exhibition in Classics.
2 Smith, Hugh M'Laren, of Queen's College, Belfast—Second Exhibition in his College, and the Exhibition in Mathematical Science.
3 Murphy, James Edward, of Queen's College, Belfast—Third Exhibition in Queen's College, Belfast.
4 MacSwinney, Robert Forster, of Queen's College, Galway—First Exhibition in his College.
5 Hughes, William, of Queen's College, Galway—Second Exhibition in his College.

II.—At the First University Examination in Engineering.

Almost equal, { Wilson, James, of Queen's College, Belfast—First Exhibition.
Lynham, W. P., of Queen's College, Galway—Second Exhibition.

Prizes in Composition open to Graduates and Undergraduates.

Wilson, Edward D. J., B.A.; First; Cork.
M'Mullan, Samuel James, M.A.; Second; Belfast.

Prize in Composition open to Undergraduates.

M'Mordie, William; Belfast.

Prize in Composition open to Undergraduates in Medicine.

Mullan, Andrew, M.A.; Belfast.

Prizes Awarded at Entrance Examination.

October, 1865.

Crookshank, Charles W.,	First in English Composition and First in Geometry,	Cork.
Oram, John,	First in English Composition and First in Geometry,	Galway.
Brown, William M.,	First in Geometry,	Belfast.
Craig, William,	Second in English Composition,	Belfast.
Newell, Robert,	Second in English Composition,	Cork.
Ferdinand, Charles,	Second in English Composition,	Galway.
Young, John,	Second in Geometry,	Belfast.
O'Hea, M.,	Second in Geometry,	Cork.
Eaton, Thomas,	Second in Geometry,	Galway.

Students Matriculated since October 1, 1865.

Names.	College.	Names.	College.
Addey, George,	Cork.	Breakey, Samuel B.,	Belfast.
Agnew, Samuel,	Belfast & Galway.	Bredin, John Noble,	Galway.
Allen, Henry,	Cork.	Brenan, Charles F.,	Cork.
Anderson, William B.,	Belfast.	Brereton, John Thomas,	Galway.
Armstrong, John,	Belfast.	Brereton, W. Westropp,	Galway.
Arnold, Patrick,	Cork.	Breton, William,	Cork.
Barry, James F.,	Cork.	Brett, James R.,	Cork.
Barry, J. R.,	Cork.	Browne, Richard Boyle,	Galway.
Beamish, William,	Cork.	Browne, William,	Cork.
Black, Moore,	Belfast.	Browne, Wm. M'Deavy,	Belfast.
Blake, J. M.,	Cork.	Cade, Joseph,	Cork.
Blake, Edwin J.,	Cork.	Calvert, Joseph W.,	Belfast.
Bodel, James,	Belfast.	Carden, Henry,	Cork.
Bourke, M.,	Cork.	Clarke, William C.,	Cork.
Bradley, William H.,	Cork.	Cleland, Thomas,	Belfast.
		Colohan, Nicholas,	Galway.

Appendix.

II. Degrees, Certificates, and Honors, 1865.

Names.	College.
Connell, William,	Cork.
Connolly, John,	Cork.
Corby, Henry,	Cork.
Coulter, William,	Belfast.
Cowan, James,	Belfast.
Craig, William,	Belfast.
Crookshank, Charles H.,	Cork.
Daly, George W.,	Belfast.
Daly, Maurice,	Cork.
Davis, John W.,	Galway.
Davis, Robert J.,	Cork.
Dewar, Elliott D.,	Belfast.
Dick, John,	Galway.
Dooley, John Leopold,	Galway.
Duggan, Stephen,	Cork.
Dunlop, William,	Belfast.
Eaton, Thomas,	Galway.
Elliott, John W.,	Cork.
Enright, John F.,	Cork.
Evans, Thomas E. F.,	Cork.
Exham, Richard,	Cork.
Faulkner, W. J.,	Belfast.
Ferdinand, Chas. Joseph,	Galway.
Fitzmaurice, Nicholas,	Cork.
Fitzmaurice, Wm. Mark,	Galway.
Fitzsimon, John B.,	Belfast.
Fleming, John,	Belfast.
Flood, Alexander W.,	Galway.
Foley, Edward,	Galway.
Foley, Nelson,	Belfast.
Gabbett, Cecil E.,	Cork.
Galway, Edward,	Cork.
Gibson, John,	Belfast.
Gilligan, Edward,	Cork.
Gillman, Shaw,	Cork.
Gorham, Patrick,	Galway.
Greenlees, John,	Belfast.
Hadley, Clement,	Belfast.
Haines, Charles H.,	Cork.
Hanna, W. John,	Belfast.
Hart, James H.,	Belfast.
Harvey, William,	Belfast.
Hastings, H.,	Belfast.
Hastings, William J.,	Cork.
Hawkins, Alexander B.,	Belfast.
Hayes, James F.,	Cork.
Haynes, James C.,	Cork.
Heeney, Francis X.,	Belfast.
Henry, Richard,	Belfast.
Henry, Thomas,	Belfast.
Hoey, William,	Belfast.
Horan, Thomas,	Cork.
Howley, James,	Galway.
Humphreys, George,	Cork.
Hutchinson, Hugh,	Cork.
Irwin, James,	Belfast.
Jellie, John S.,	Belfast.
Jones, Robert W. W.,	Cork.
Joyce, John S.,	Cork.
Kane, Roderick W.,	Cork.
Keegan, Peter,	Belfast.
Kelly, James Edward,	Galway.
Lyons, Alex. C. S.,	Belfast.
Lynas, James,	Belfast.
Macaulay, Charles A.,	Galway.
Macaulay, William J.,	Belfast.
Macnamara, James J.,	Cork.
Macnamara, Patrick J.,	Cork.
Magill, David,	Belfast.
Maitland, F.,	Belfast.
Malcolm, Gawn,	Belfast.
Marshall, Benjamin,	Belfast.
Martin, Thomas,	Belfast.
Meek, Walter Woods,	Belfast.
Millar, Alex. P.,	Belfast.
Millar, Robert,	Belfast.
Milward, William,	Cork.
Moore, David R.,	Belfast.
Moorhead, Robert L.,	Belfast.
Morell, James,	Belfast.
Morgan, George,	Belfast.
Morrison, John,	Belfast.
Motherwell, John B.,	Belfast.
Mulligan, James,	Belfast.
Murphy, Michael E.,	Galway.
Murphy, Michael W.,	Belfast.
M'Bride, Robert,	Belfast.
M'Cartney, Samuel,	Belfast.
M'Cay, John,	Galway.
M'Clean, Robert,	Belfast.
M'Clenaghan, W. T.,	Belfast.
M'Connell, Samuel,	Galway.
M'Cutcheon, James,	Belfast.
M'Donald, Charles James,	Galway.
M'Donnell, James O.,	Galway.
ad eundem from Durham.	
M'Donnell, Martin A.,	Galway.
M'Harg, William,	Belfast.
M'Ilveen, John,	Galway.
M'Kenna, Thomas,	Galway.
M'Keown, William Alex.,	Belfast.
M'Sweeney, John,	Cork.
M'Swinney, George H.,	Galway.
Nevil, Timothy,	Cork.
Newill, Robert W.,	Cork.
Nicholls, John W.,	Galway.
Nightingale, Walter H.,	Galway.
O'Brien, Daniel,	Galway.
O'Connor, Bernard,	Cork.
O'Connor, Watkins R.,	Cork.
O'Flynn, F.,	Cork.
O'Hea, Michael,	Cork.
O'Hanlon, Wm. Palliser,	Galway.
O'Neill, James,	Belfast.
Oram, John Earl,	Galway.
O'Shea, John J. R.,	Galway.
Osborne, Thomas,	Cork.
Oulton, Charles A.,	Belfast.
Patterson, Thomas,	Belfast.
Peard, H.,	Cork.
Plowman, Charles,	Cork.
Pope, Frederick C.,	Cork.
Prenter, Martin,	Belfast.
Quinn, James,	Belfast.
Quinton, R. F.,	Belfast.
Ramsay, Samuel,	Belfast.
Rathbourne, Charles A.,	Galway.
Rathbourne, Hen. Talbot,	Galway.
Reardon, Thomas R.,	Cork.
Rice, Patrick,	Cork.
Ritchie, William,	Belfast.
Rutherford, William,	Galway.
Sandys, James,	Galway.
Saunderson, Wm. Brown,	Galway.
Scott, Buchanan,	Belfast.
Scott, William,	Belfast.
Shaw, David,	Belfast.
Shaw, James,	Belfast.

Names.	College.
Shaw, Thomas Molloy,	Belfast.
Sherrie, George,	Belfast.
Shillidy, John,	Belfast.
Simpson, Robert S.,	Belfast.
Smith, James,	Cork.
Smith, James E.,	Galway.
Smith, Oliver Douglas,	Galway.
Smith, Samuel John,	Belfast.
Stephens, William,	Galway.
Stewart, Samuel E.,	Belfast.
Sweetnane, William F.,	Cork.
Talbot, Bertram,	Galway.
Talbot, Bertram F.,	Cork.
Taylor, John P.,	Galway.
ad eundem from Cambridge.	
Tooker, Montiford,	Cork.
Townsend, Thomas C.,	Cork.
Trousdill, John E.,	Cork.
Warwick, George G.,	Belfast.
Whigham, David S.,	Belfast.
Wilson, Robertson B. S.,	Belfast.
Wilson, Thomas,	Belfast.
Wilson, Thomas,	Belfast.
Woods, William,	Galway.
Wylie, Matthew,	Belfast.
Young, Alexander,	Belfast.
Young, John,	Belfast.

Senior Certificates in Arts for Candidates who are not Members of the University.

Honors in Section A.

FIRST CLASS.

Francis Lambert (Wesleyan Model School, Hardwicke-street; John W. Pitchford, A.B., Master).
Samuel M'Connell (Santry School; W. H. Engledow, A.B., Master).

SECOND CLASS.

James Byrne (Santry School; W. H. Engledow, A.B., Master).
Thomas Flood Elmes (Santry School; W. H. Engledow, A.B., Master).
John Sullivan (Santry School; W. H. Engledow, A.B., Master).
Christopher M'Enroe (Endowed School, Oldcastle; John Beatty, Master).
Robert Matthews (Endowed School, Oldcastle; John Beatty, Master).

THIRD CLASS.

Robert John M'Coy (Santry School; W. H. Engledow, A.B., Master).
John Thomas Luttrell Bailey (Santry School; W. H. Engledow, A.B., Master).
James Rochford (Santry School; W. H. Engledow, A.B., Master).
William Edward Wright (Santry School; W. H. Engledow, A.B., Master).

Honors in Section B.

THIRD CLASS.

John William Early (Erasmus Smith's School, 43, Great Brunswick-street; George Porte, Master).
Francis Lambert (Wesleyan Model School, Hardwicke-street; John W. Pitchford, A.B., Master).

Honors in Section C.

SECOND CLASS.

Thomas William Kerr (Santry School; W. H. Engledow, A.B., Master).
James Rochford (Santry School; W. H. Engledow, A.B., Master).
John Sullivan (Santry School; W. H. Engledow, A.B., Master).

THIRD CLASS.

William Edward Wright (Santry School; W. H. Engledow, A.B., Master).
Samuel M'Connell (Santry School; W. H. Engledow, A.B., Master).
James Byrne (Santry School; W. H. Engledow, A.B., Master).
John Thomas Luttrell Bailey (Santry School; W. H. Engledow, A.B., Master).
Thomas Flood Elmes (Santry School; W. H. Engledow, A.B., Master).

UNCLASSED.

Nixon Parke (Santry School; W. H. Engledow, A.B., Master).

Junior Certificates in Arts for Boys under 15 years of age.

SECOND CLASS.

George Alexander Mackay (Wesleyan Model School, Hardwicke-street; John W. Pitchford, A.B., Master).
Robert Charles M'Clure (Santry School; W. H. Engledow, A.B., Master).

Appendix.

III. Estimate of the Sum required for the Queen's University.

Appendix III.

Estimate of the Sum required to defray the Expenses of the Queen's University in Ireland, for the year ended 31st March, 1866.

	£	s.	d.
Examiners,	1,565	0	0
Secretary,	520	0	0
Clerk,	120	0	0
Incidental Expenses,	80	0	0
Medals and Prizes,	475	0	0
	£2,760	0	0
Less amount of Fees,	388	0	0
Total Sum required,	£2,372	0	0

IV. Cash Account of the Queen's University.

Appendix IV.

Cash Account of the Queen's University, for the year ended 31st March, 1866.

Dr.	£	s.	d.
To Balance from last Account,	364	0	1
,, Parliamentary Grant,	2,462	0	0
,, Fees on Degrees, &c.,	473	5	0
,, Withheld for Income Tax,	32	6	9
,, Withheld for Stamps,	0	8	4
Total Charge,	£3,332	0	2

Cr.	£	s.	d.
By Examiners,	1,648	16	0
,, Secretary,	515	0	0
,, Clerk,	117	10	0
,, Assistant Clerk,	75	0	0
,, Income Tax,	57	1	7
,, Medals and Prizes, &c.,	487	12	0
,, Incidentals,	79	17	6
,, Balance,	351	3	1
Total Discharge,	£3,332	0	2

V. Meetings of the Senate.

Appendix V.

Meetings of the Senate.

Meeting of Senate, May 25, 1865.

Present:

The Right Hon. the Lord Chancellor, *Vice-Chancellor.*
The President of Queen's College, Belfast.
The President of Queen's College, Cork.
The President of Queen's College, Galway.
James Gibson, M.A.
Thomas A. Shillington, J.P.
G. Johnstone Stoney, M.A., F.R.S., *Sec.*

Meeting of Senate, July 15, 1865.

Present:

The Right Hon. the Lord Chancellor, *Vice-Chancellor.*
The Right Hon. the Chief Baron.
The President of Queen's College, Belfast.
The President of Queen's College, Cork.
The President of Queen's College, Galway.
Sir Richard Griffith, bart., LL.D.
Dominic J. Corrigan, M.D.
James Gibson, M.A.
Robert Adams, M.D.
Thomas A. Shillington, J.P.
G. Johnstone Stoney, M.A., F.R.S., *Sec.*

Meeting of Senate, August 9, 1865.

Present:

The Right Hon. the Lord Chancellor, *Vice-Chancellor.*
The President of Queen's College, Belfast.
The President of Queen's College, Cork.

MEETINGS OF THE SENATE—*continued.*

The President of Queen's College, Galway.
Dominic J. Corrigan, M.D.
James Gibson, M.A.
Robert Adams, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Sec.*

Meeting of Senate and Public Meeting of the University, October 11, 1865.

Present:

The Right Hon. the Lord Chancellor, *Vice-Chancellor.*
The Right Honorable the Lord Justice of Appeal.
The President of Queen's College, Belfast.
The President of Queen's College, Cork.
The President of Queen's College, Galway.
Sir Richard Griffith, bart., LL.D.
Dominic J. Corrigan, M.D.
Major-General Sir Thos. Larcom, K.C.B., LL.D.
The Right Hon. the Chief Justice of the Common Pleas.
Thomas A. Shillington, J.P.
G. Johnstone Stoney, M.A., F.R.S., *Sec.*

Meeting of Senate, October 16, 1865.

Present:

The Right Hon. the Lord Chancellor, *Vice-Chancellor.*
The President of Queen's College, Cork.
Sir Richard Griffith, bart., LL.D.
Major-General Sir Thos. Larcom, K.C.B., LL.D.
Dominic J. Corrigan, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Sec.*

Meeting of Senate, January 8, 1866.

Present:

The Right Hon. the Lord Chancellor, *Vice-Chancellor.*
The President of Queen's College, Cork.
Sir Richard Griffith, bart., LL.D.
Sir Dominic J. Corrigan, bart., M.D.
Robert Adams, M.D.
G. Johnstone Stoney, M.A., F.R.S., *Sec.*

DUBLIN: Printed by ALEXANDER THOM, 87 & 88, Abbey-street,
For Her Majesty's Stationery Office.

REPORT

OF THE

SPECIAL COMMISSIONERS

FOR

IRISH FISHERIES,

FOR

1865.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

[*Price 7d.*]

CONTENTS.

	Page
REPORT,	3
APPENDIX,	25

REPORT.

TO HIS EXCELLENCY JOHN BARON WODEHOUSE,

LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

MAY IT PLEASE YOUR EXCELLENCY,

WE have the honour to present our Third Annual Report on the Salmon Fisheries of Ireland. The different subjects referred to will be found in the following order :—

1. General state of the Fisheries—Improvement—Increase in men employed, and in Funds.
2. Fixed Engines or Fixed Nets in tidal waters. *Vide post* page 5.
3. Stone Weirs. *Vide* p. 11.
4. Mouths of Rivers and Estuary Definitions. *Vide* p. 12.
5. Local Management. *Vide* p. 12.
6. Recommendations for Amendment Bill. *Vide* p. 18.
7. Fish Passes. *Vide* p. 20.
8. Pollution. *Vide* p. 22.
9. Eels. *Vide* p. 22.
10. Bye-Laws. *Vide* p. 22.

General State of the Fisheries—Improvement—Increase in men employed, and in Funds.

We have great satisfaction in being able to report the steady and progressive improvement of the fisheries committed to our charge. That improvement is, however, more real than apparent. Its proofs are found in the shoals of smolts that descended to the sea last spring, in the multitudes of fry that swarmed in the rivers during the summer, and in the unprecedented number of breeding fish that have so lately thronged the spawning beds. Its effects appear in the increase of the number of men living on the fisheries, and of the funds collected for the purposes of preservation. In no previous year, as far back as living evidence will take us, have the rivers of Ireland been so well stocked with salmon, young and old. But, on the other hand, the supply to the market has been slightly, perhaps, below the average. We publish in the Appendix an abstract of the statements made by the clerks to the Boards of Conservators on the state of the salmon fisheries. By reference to them it will be seen that an improvement is very generally reported. The Cork and Waterford returns are the only exceptions worthy of notice. The description of the management of the Cork district given hereafter *Vide* p. 16. sufficiently accounts for the falling off reported from thence; indeed we wonder that it is not far greater. The Waterford return is founded almost exclusively on the amount of fish brought into the Waterford fish-house. But since the change in the mode of fishing occasioned by the Act of 1863, a large portion of the take is despatched from other places; thus we hear from New Ross that £3,050 worth of salmon were bought there last season by newly-established fish factors; and referring to the railway returns, we find that the quantity of salmon conveyed from Waterford in 1864 was 140 tons 2 cwt., and in 1865 was 131 tons 5 cwt., so that the decline described by the clerk as "such a failure as had seldom or ever been known," amounts to a decrease of less than nine tons, even assuming that no fish were sent from New Ross *vid* Thomastown, the shortest route to Dublin.

The causes of the decrease in the supply, such as it is, are simple and reassuring. The past season has been exceptionally dry. The heat and drought of 1865 equalled and indeed surpassed that of 1864, when the rivers fell to a lower level even than in 1826, the year hitherto referred to in Ireland as the driest within memory or known to tradition. From early spring to late autumn in many rivers there was not a single flood. In the Bann, for instance, a river second only in size to the Shannon, and fed by Lough Neagh, the water fell seven inches lower than in 1864. It is almost needless to say that salmon will not run in dry weather, nor enter rivers that are below their ordinary low water

level. The estuary and sea fisheries also are affected by continuous fine weather. The water becomes clear, the fish are enabled to avoid the draft, drift, or snap nets, and the number taken under such circumstances cannot but be small. The effect of the past unusually long and fine summer has been felt throughout the fisheries of the United Kingdom. The take in Scotland, as in Ireland, has been below the average, and the quick and progressive increase of England has been apparently checked.

Some decrease in the supply might, indeed, have been anticipated from the removal, since the Act of 1863 came into operation, of the greater number of the fixed engines which filled the mouths and obstructed the entrance of the Irish rivers. Illegal as those engines were, the length of time they were suffered to remain shows that they never would have been interfered with if their power of capture had not been excessive. Working by day and by night, ever ready to intercept the fish, constructed to take advantage in the finest weather of each breeze that ruffled the surface and disturbed the bottom of the sea or estuary, they caught a larger per-centage of the fish than the productive power of the rivers could afford. In dry seasons they were especially injurious, because unusually productive. In times of drought the fish pass up and down the estuaries with the ebb and flow. Coasting along the leeward shore, a certain number are taken in every favourable tide, and when at length the long-desired fresh-water flood fills the rivers, there are few fish left to ascend them. The result has been that where fixed engines have been used in any considerable numbers, a dry season has been followed by a scanty stock of breeding salmon, and an almost entire absence of grilse. Thus the take of one year has been made at the cost of many successive seasons. In Ireland for the last two years this rule has been broken through. Two such seasons of drought as occurred in 1864 and 1865 have not been experienced before within man's memory, nor can the oldest fisherman recollect the appearance on the spawning beds of a more abundant stock of breeding fish.

Thus, though owing to the drought and the removal of illegal fixed engines, the supply for the year has shown a falling off rather than an increase, the prospects of the fisheries were never more promising. An addition, corresponding with the decrease in the capture, has been made to the stock of the rivers, already increasing, and a most opportune check has been given to the over-fishing that was yearly rendering salmon more scarce and more dear. A little patience, with the exercise of such care by the fishery proprietors as ordinary regard for their own interests should ensure, and the Irish fisheries will yield a return that none but the most sanguine now look for.

But the promise of an increased supply, and of cheap salmon, is not the only nor indeed the greatest public gain that has been obtained by the operation of the Act of 1863. No country, probably, stands in greater need than Ireland of remunerative and independent labour; and we have the satisfaction of reporting a large increase in the number of men living on the produce of the public salmon fisheries.

In referring in our last Report to the changes brought about by that Act, we stated that our returns showed that 520 more men were employed in the salmon fisheries in 1864 than in 1863. Those returns were based on the calculations adopted by our predecessors, by whom it was estimated that four men were employed by each Bag, or Stake, or Fly-net. We have endeavoured to verify that estimate; and by a return furnished from the Shannon, we find that whilst 138 of these nets were fished in 1863 in that (the Limerick) District, 207 men only were employed in working them. Four men are not uncommonly required to work a single fixed net, but the same crew are enabled to fish several nets, and hence the mistake has arisen. Assuming the return from the Shannon to be correct, as we believe it to be, and the fixed nets elsewhere to employ men in a like proportion, the gross number engaged in the fisheries in 1863 was 8,830, and in 1864 was 10,384, showing that 1,554 more men were engaged in the salmon fisheries in 1864 than in 1863. Our return for 1865 shows a still greater increase. In that year 11,333 men were thus employed, showing an increase on the year 1863 of 2,503; and we should add that more nets were worked in 1863 than in any previous year.

Vide Appendix, page 39.

But the employment given by the movable nets is even greater than here appears. Stake and Fly nets are worked from the shore, Bag-nets by a boat, one boat generally fishing several nets, and lasting many years; but each Snap or Drift net (and it is Snap and Drift nets that have taken the place of the fixed nets) is worked by two cots. In the Waterford estuary and Barrow river 282 of those nets were used in 1863, no less than 467 in 1865, and the demand for cots, we were told, was so great on those rivers in the last spring that the builders could not supply it.

With the change from the use of fixed to that of movable nets an increased fund for the development of the fisheries has also been placed at the disposal of the local Boards of Conservators. The gross amount received from licence duties in 1863 was £5,892 7*s.* 6*d.*, and in 1865 was £6,722 16*s.* 8*d.*, being an increase of £830 9*s.* 2*d.* as compared with the largest revenue ever previously obtained. In salmon fisheries, protection produces fish, and fish provide the money wherewith protection may be purchased. The difficulty is to find

Vide Appendix, page 39.

a point from which the circle may commence. Here we see the first ring in the inner circle of a movement which, if undisturbed, may with time spread far and wide. The place of each fixed engine is taken by a dozen movable nets, and the funds gain by the change. The best examples we can take are the Limerick and Waterford Districts, for fixed nets were there used in the greatest profusion, and we find in the one district that the funds have already more than recovered the fall they experienced in the first year of the change, and in the other that they have very largely increased. The licence-duty paid on the Shannon in 1863 was £1,339; in 1864, £1,153 13*s.* 4*d.*; in 1865, £1,313. But the licence-duty on each rod used in this district was fixed at £1 for the season of 1865. The half of this only was paid, and the funds thus lost £218 10*s.*, so that the legal revenue of this Board for that year was £1,531 10*s.*, the highest sum it has ever reached. In the Waterford District the increase is still greater:—In 1863 the total amount of licence-duty was £741 10*s.*; in 1864 the licences yielded £847 6*s.* 8*d.*; in 1865 no less a sum was received than £1,158.

Vide post, page 19.

Fixed Engines, or Fixed Nets.

In our two Reports already published we have fully described the legal position, and given the history of the fixed engines used in the tidal waters of Ireland; and, as the light that has been since thrown on the very complicated code of Acts respecting them has not required us to alter any opinion we then expressed, or to correct any statement then made, we shall not pass again over the same ground. It remains for us to state the issue of such of the appeals from our decisions to the Court of Queen's Bench as were pending when our last report was published.

On some of those appeals our decisions have been reversed, and as we think it important that the Fishery Laws affecting fixed engines should be understood, and we consider that it is our duty to report how far we have been in error, and to give the reasons which led us to form opinions since declared to be bad in law, we now refer to the cases in point. They nearly all turn upon two questions easy to understand, and, we hope, not hard to explain.

It is necessary to explain that the cases on which the appeals now referred to were raised, were heard by our Commission when differently constituted from what it now is; and that "the majority" mentioned consisted of the two members of the present Commission who have served from the time of its first appointment, and that the opinions expressed under the heading of Fixed Engines emanate therefore from them.

Prior to the Act of 1842 the use of fixed engines in the tidal waters of Ireland was illegal. Section 18 empowered, under certain conditions, the owners of several or exclusive fisheries to erect them; and section 19 of that Act enacted—"That it shall be lawful for any person who shall hold and occupy as tenant in fee-simple" (or for other terms, of which 14 years unexpired at the time of erecting such net is the minimum) "any land adjoining the sea-shore, or any estuary (subject to certain conditions) to fix or erect such stake or other fixed nets as aforesaid attached to that part of the shore adjoining such land."

Subsequent Acts provided remedies against persons who abused this provision: 8 & 9 Vic. sec. 3 recites—"That whereas notwithstanding the provisions of the first recited Act (5 & 6 Vic. c. 106), with regard to the erection and use of stake weirs, fixed nets, &c.: the same are in many instances erected and used in places prohibited, and by persons who have no title so to do;" and sec. 5 of 8 & 9 Vic. c. 108, enacts "that if any person other than the persons entitled to exercise such right as aforesaid under the provisions of the above-named Act, shall erect, use, or fish with any fixed net," he shall be subject to a penalty and the net be forfeited.

Sec. 16 of 13 & 14 Vic. c. 88, enacts that no person other than those entitled to exercise such right as in the former Acts mentioned, shall place, erect, maintain, or use any fixed net, &c. Section 4 of 26 & 27 Vic. enacts that "No fixed net that was not legally erected for catching salmon or trout during the open season of 1862, shall be placed or used for catching salmon or trout in any inland or tidal waters."

Section 5 of the same Act enacts that this Commission "shall abate and remove all fixed nets erected or used for catching salmon or trout in Ireland, that are in their judgment injurious to navigation, and shall inquire into the legality of, and if satisfied of their illegality remove, all such other fixed nets erected or used as aforesaid, as are in contravention of any Act of Parliament or law in force in Ireland."

On these sections it appeared to us to be our duty to require the person or persons actually using fixed nets to show that they used them under the title granted by the first recited Act. It is to be observed that the terms "erect," "fix," "use," "maintain," "fish with," seem to be used synonymously throughout the Acts; and it is somewhat striking that the 3rd section of 8 & 9 Vic. recites the 19th section of 5 and 6 Vic., c. 106

(where the words are "fix and erect"), as provisions with regard to the erection and use. Amongst the proofs we required was evidence that the person using a fixed net in 1862 held and occupied land adjoining that portion of the sea-shore or estuary on which it was erected. The statement of a single case will show how far we were in error. On the Mount Trenchard estate, bordering on the Shannon estuary, we found six fixed nets. One was confessedly injurious to navigation; a second was not erected at all in 1862; and their defence was abandoned. To the four others the proprietor claimed title, both under the 18th section as the owner of a Several Fishery, and under the provisions of the 19th section as holding and occupying the land adjoining that part of the sea-shore or estuary on which they were erected. The Commission was divided in opinion upon both these points—the majority deciding that the claimant failed to establish his title under either section—the minority holding that he had done so on both. As the Court of Queen's Bench, on appeal, upheld the decision of the majority as regards the Several Fishery, we need not further refer to it. With respect to the claim under the 19th section the evidence was as follows:—The nets were held by a yearly tenant; this tenant fixed, used, maintained, and fished them, paid the rent, licence, and taxes, and did not hold or occupy any land whatever. The land adjoining was let, but the sea-shore itself, by which we mean the shingle and sand lying between the arable land and high-water mark of ordinary tides was not, it was contended, included in the lettings to the tenants. The strip so claimed as land within the meaning of the Act was described by a surveyor produced for the owner of the weir as "being rocky, shingly, and in fact shore, partly covered at high springs;" and though opposite one weir "the remains of a fence were distinctly marked" between what was pointed out to him as the tenants' holding and this strip, at another "there was no boundary between the tenants' lands and the shingle; in fact that there was no boundary fence whatever to the land adjoining this weir but the Shannon." The third weir was similarly situated. On these facts it was contended that the tenant of the weirs was the mere servant of the owner in fee; that the weirs—substantial structures capable of stopping a boat of eight or ten tons, even when driven by a breeze and favourable tide—were "incorporeal hereditaments," similar in character to a right of way or right of ferry; that, as such, they could not be dealt with except by deed, and, therefore, their property remained in the owner in fee who had in vain and illegally sought to divest himself of them by parol agreement, or by a document not under seal.

It was further contended that the strip we have described was land within the meaning of the Act, and that the owner in fee was in occupation of that strip. No satisfactory evidence of such occupation was, however, given us. We held that there was a wide difference between a right of fishing and the means by which that right was exercised in the shape of a substantial weir, constructed of poles 14 feet high, 5 to 7 inches in diameter, all firmly lashed together—such an erection had, indeed, been declared by Lord Hale "to be the soil itself" and was corporeal; that the several Fishery Acts quoted referred to the persons, in fact, using, maintaining, fishing the net, as the persons who must hold and occupy land adjoining the sea-shore; that such land must be land adjoining the sea-shore, and not the shore itself. We found further (in the event of these points of law being ruled against us) acting as a jury to determine a matter of fact, "that it was not proved that the owner in fee was in occupation even of this strip." Under these circumstances we declared the fixed nets in question to be illegal. The Court of Queen's Bench have reversed our decision. Stake weirs have been declared to be incorporeal; as such the person who erects and uses them in fact is not the person who does so in law—the strip of sea-shore is held to be "land" within the meaning of the Act, proof of occupation was assumed, and the nets were declared legal.

The manner in which an Act of Parliament or code of Acts is construed, must be materially influenced by the point of view from which it is regarded. The conviction on the one hand that an Act is harsh in its measures and prejudicial in its results to any of the parties affected by it, or, on the other, that it is an Act beneficial to the public, cannot but more or less bias the minds of those whose duty it is to carry it into operation or to interpret its context. The Act of 1842 has been and is very differently characterized. By some the history and state of the fisheries prior to 1842 was remembered. The public and those who lean towards the preservation of public rights, bore in mind that from time immemorial, until that Act was passed, the tidal waters of Ireland, except in very few places, were open to all; that every man had a right to such fish as he could legally catch therein; that many men exercised that right and lived thereby, and that the fish were more plentiful in those days and the fishermen better clothed and fed. Others regarded the Act as conferring an inalienable property made sacred by an use and enjoyment of some twenty years, and in the conflict of public and private rights sought means in the ambiguity of the law to protect and enhance the latter. By the one party each fixed net was looked upon as an encroachment on

the public right, that should, if possible, be removed ; by the other it was respected as a property deserving of the utmost protection any interpretation of the law could afford.

The opinion of the Court of Queen's Bench on these points may be gathered from the following extracts from the judgments given by their lordships in a case of appeal. Mr. Justice Fitzgerald stated " that the weir, the subject of that appeal, was illegal and contrary to the provisions of the Act 5 & 6 Vic., c. 106 ; and he unfortunately found himself obliged to concur with this view, that the Commissioners were right in deciding that the weir should be removed." That such should be the case " was no doubt a great misfortune to the owner of the weir, and he wished he could give his judgment in his favour, but he was coerced by the language of the statute." Mr. Justice Hayes " concurred in the view taken by his brother Fitzgerald, and even in his expression of regret at being compelled to take that view." Mr. Justice O'Brien dissented from the opinion of the Judges already mentioned, viz., that the extension, contrary to the Act of Parliament, of the entire of the fishing part of the weir beyond low-water mark, made the whole weir illegal, and held that the weir was legal, although the portion in excess was not so. The Lord Chief Justice said—" When I consider the view with which this Act was passed, and that it was to promote the public interest, to discourage as much as possible the system that had crept in, which not merely operated as a partial nuisance, but would, if not checked, have ended in a total destruction of the salmon fishery in Ireland ;—when I consider the principle of this Act, I feel myself bound to promote as far as possible that great legislative object, and in the construction in which I should act, that I should have regard to the public interest and good towards that which the Legislature made a nuisance," and concurred with Mr. Justices Fitzgerald and Hayes in upholding our decision for the removal of the weir.

The knowledge we had acquired of the state of the fisheries, the scenes we had witnessed, the evidence we had heard, had led us to approach the Act in a spirit different from that expressed by the majority of the Court, and we pray in aid of our decisions and in support of our views the words we have quoted from the judgment of the Lord Chief Justice. We could not forget that rights as sacred as those created by the Act of 1842 had existed before it. We could not shut our eyes to the evidence we had constantly before us that the effect of that Act had been deleterious to the fisheries, and destructive to a large number of fishermen. We recognised that the Act had conferred great rights, and that it was our duty to acknowledge and protect them, but we thought that the conditions limiting those rights were equally deserving of respect. We believed, as already stated, that prior to 1842 fixed nets were not legal in the tidal waters in Ireland. This opinion has been since affirmed by the majority of the judges in the Court of Queen's Bench. We saw that the Act of 1842, in thus legalizing such engines, had granted, at the expense of the public, no small boon to proprietors of land adjoining the sea and estuary shores, and we believed that the restrictions imposed upon the exercise of that gift were intended by the legislature to prevent its abuse, and to act as a protection to the public rights, which but for those restrictions would have been entirely made over to individuals. The provisions containing those restrictions were not only recognised, but were rendered more stringent by every succeeding Fishery Act. They were the conditions on which the encroachment on public rights was permitted, and appeared to us to require a plain, literal, and strict interpretation. We thought, therefore, that it was incumbent on the persons who availed themselves of the privileges to observe literally the conditions attached to them, and we refused to accept constructive titles in the place of such an observance. Indeed on any other view of the law we sought in vain for the purpose with which the Legislature had qualified the declaration of the legality of fixed nets at all. The ruling of the Court however in the case stated, has practically extracted all restraint from such of those conditions as restrict the right of owners of land to erect nets. Wherever round the coast, stake nets can be erected, there must be such a strip as we have described—a waste of shingle and sand or rock, broad or narrow, as the shore is shelving or steep, often only a few feet in breadth, and formed by the space between high-water mark of ordinary and of extraordinary high tides, and this strip is in the nature of things never measured into the tenants' holdings, nor would it be included in terms in their leases, if a lease there should perchance be. It is held, therefore, by the landlord ; and if no proof of occupation by him is required, and he, in the absence of a lease, is the person who in law, though not in fact, erects and uses the net —as in Ireland leases are rarely granted—the nets can hardly be not legal. Some exceptional cases may occur and have occurred to our knowledge ; for instance, a similar title claimed by the owner in fee was given up on the production of a lease of the arable land adjoining, for a plan referred to in the lease, showed the Shannon itself to be the boundary of the holding, but leases of either land or fixed engines are in Ireland very seldom met with, and provision is made in the Act for the case of a lease of land. Thus the 19th section of the Act of 1842, practically did not restrict, as far as title was concerned, the

permission granted by it to erect fixed nets, and if this was the intention of Parliament, it would have been more simply expressed by a declaration, that all persons holding, as owners in fee, land adjoining the sea-coast might legally erect fixed nets, and permit whom they pleased to do so.

Another question decided by the Mount Trenchard case requires notice. The rights granted by the 19th section are subject to a proviso, saving to the public "the free and full exercise and enjoyment of all other rights of fishing." It was proved that one of these nets called the "Durnish weir," was erected at a place where the public had been in the common habit of using draft nets. Evidence was given us that one man, and his father before him, prior to the occupation of the site by the net, had regularly so fished this spot, living by that means, and that others resorted to the same drafting place, an exercise of the public right that the erection of the net entirely prevented, whilst its stumps and stakes further interfered with and injured the nets still used on the adjacent shore. It was also shown that the herring shoals struck on this portion of the shore, and that the men could not follow them freely as of old in consequence of this net.

In defence of the net it was contended that the Commission had no power to inquire into an injury to the public right of fishing, and it was urged that, if such a power were exercised, the grant made by the 19th section would be illusory, inasmuch as the projection of a fixed net into the estuary for the capture of fish must interfere with some other mode of fishing. On the evidence it was further insisted that, if there was such power, this net was not injurious to the public right. The majority of the Commission held that it had the power of inquiry and adjudication. To the argument of the necessary interference with draft and other movable nets by a fixed net we did not attach any importance, for there is no such necessity. The whole length of the Shannon estuary affords comparatively few suitable places for drafting. Herring nets cannot approach any but a perfectly smooth shore. Wherever rocks or rough ground are found with shallow water, nets other than fixed nets cannot be worked; and, as may be seen in the present instance, one net only out of four was, in our opinion, injurious to the public right of fishing. Acting, therefore, on the evidence given before us, we found that the net was injurious to the public right, referring to the words of the 19th section of 5 & 6 Vic. c. 106, saving to Her Majesty "and all the subjects of this realm the free and full exercise and enjoyment of all other rights of fishing," words which we looked upon as synonymous with the expression "a common nuisance," contained in subsequent Acts.

The Court of Queen's Bench affirmed the judgment of the majority on the question of law, but reversed it on the question of fact. The judgment of the Court was given by Mr. Justice O'Brien in these words :—

"It now remains for us to consider the question as to the alleged interference with the public right of fishing; and upon this question we have had considerable difficulty; but we think the sound constitution of the law on that point to be as I will now mention. Mr. Longfield, in his very able argument, was right, I think, in saying that, in considering this point, we should not only consider the provisions of the Act of 1842, but of all the subsequent Acts of Parliament. Now, section 19 of the 13th and 14th Vic., cap. 88, should be carefully considered. It enacts 'that nothing in the said recited Acts or this Act contained, shall take away, or in any manner lessen or impair the powers of Her Majesty's High Court of Admiralty, or any other court or jurisdiction in relation to the removal or abatement of nuisances accruing or occasioned to navigation, fishery, or the passage of fish, by the placing or maintaining, or using of weirs, fixed nets, or other contrivances.' Then comes the 6th section of the last Fishery Act (26th and 27th Vic., cap. 114), which grants certain certificate in respect of fixed nets, but provides that such a certificate 'shall not render any net legal that would be otherwise illegal by reason of its being injurious to navigation, a common nuisance to the public right of fishing, or otherwise in violation of common law, or any Act of Parliament.' The words used there are 'a common nuisance,' and it would be senseless to say that you interfere with the public right of fishing in a place where you cannot exercise the privilege of fishing. We therefore think the sound construction of the statutes is this, to say that if the possession of a weir is such as to be 'a common nuisance,' that then the weir is illegal. That being so, what is the evidence? There is no such fact found here. It would be hard to say, that because parties fished about this locality, that these nets should be all declared illegal. That would be putting a construction upon the Act of Parliament which, I think, was not intended by the Legislature. We think the sound conclusion to arrive at is to hold that if these nets or weirs are 'a common nuisance' to the public right of fishing, they should be removed, but not otherwise. For all these reasons we will declare Lord Monteagle has established his right to maintain the weirs numbered 1, 2, 3, and 5, under the 19th section of the 5th and 6th Vic., cap. 106. And as to No. 3, the Durnish weir, we will further say that our order shall not be held to prejudice any proceedings that may be taken by indictment, or otherwise, on the ground that it is 'a common nuisance' to the public right of fishing. If it is 'a common nuisance,' we think it should be removed; but there is no evidence before us to warrant us in coming to that conclusion."

As one other very similar case has been decided on appeal, we for convenience here state it. It was proved to us that a weir was erected about twenty years ago on a portion of the shore of the Shannon estuary that was very valuable for herring fishing, and constantly resorted to by the herring fishermen, whose nets had since been frequently damaged by it. This damage was generally occasioned by parts of the weir left standing when the great majority of the poles had been removed at the close of the salmon fishing season.

That season now closes on July 6th, a termination earlier by some weeks than is fixed for

any other district of Ireland. It was proved that the herrings seldom or never appeared before that time. As in the preceding case, our jurisdiction was questioned, and the injurious effect of the weir was denied. The Court made a similar ruling, affirming our decision on the question of law, but reversing our finding and order on the question of fact. At the same time, they required an undertaking on the part of the weir owners, that all the poles of the weir should be removed at the close of the salmon season. Should the present close season remain in force, and the order of the Court be observed, the injury to the public occasioned by the maintenance of this weir will be small; but the Court seem not to have been aware that power is vested in us to alter, from time to time, the season in force; that the close season for fixed nets in the Shannon was determined at this very early date in consequence of the excessive number of these engines—a reason which no longer exists;—that we are pressed strongly, and with apparent reason, to alter the season so fixed, and that such an alteration might permit the maintenance of the weir into and during the height of the herring season.

By the statement of one more case we shall exhaust the adverse decisions of the Superior Court.

The owner of Carrowbanebeg, a property on the Shannon, granted a lease many years ago of those lands. In 1843 Mr. Patrick Griffin, who had derived from the grantee, recovered the lands from a sub-tenant, obtained the permission to erect a weir required by the Act from the head landlord, and erected one. In 1851 he made an arrangement with John Griffin, who fished the weir for him, giving a share in the produce in the place of wages. In 1852 Patrick Griffin surrendered his interest in the lands. In 1857 the lands were let by the chief landlord on a lease of twenty-one years to John Griffin, who, between 1852 and 1857, had been in occupation of them as a yearly tenant. The original erector of the weir, Patrick Griffin, appeared in support of it; but as he neither held nor occupied any land at all after 1852, he could not sustain his title. The fisherman of the weir then put in his claim; but as the Acts require that the person who erected, and used the weir in 1862, should not only hold and occupy the adjoining land, but should also have the landlord's consent in writing to the erection of the weir; and as we looked upon him as the mere servant of Patrick Griffin, and if he was not to be so regarded he had no consent, we held that the conditions of the Act were not complied with. A further point appeared to us, in settling the statement of case for the superior Court, to be fatal to the weir. By the ruling of the Court that a weir is an incorporeal hereditament, and remains in the landlord, unless parted with by a deed under seal, both the original constructor and the present fisherman of the weir must be considered, as in the decided cases, servants of the landlord. But the landlord did not occupy any adjoining land, and no claim under his title was preferred.

On these grounds the majority of the Commission could find no title in any one of the three parties interested in the weir, no one of them having complied with the three conditions, and the removal of the weir was ordered.

The Court above reversed that decision, and we insert their judgment as taken down by a short-hand writer:

"10th *November*, 1865.

"Patrick Griffin, *Appellant*; Malcomson, *Respondent*.

"John Griffin, *Appellant*; Same, *Respondent*.

"The Lord Chief Justice said—The Court is of opinion that the weir in this case should be sustained, and therefore, that the order of the majority of the Fishery Commissioners should be reversed. I confess that I was for some time disposed to take a different view of the case, but, upon conferring with my brethren, they have shaken the opinion I was so disposed to form so much that I would not feel myself justified in differing from them. The decision of the Commissioners must be reversed.

'Mr. Justice O'Brien.—I shall adopt what I have already thrown out in the course of the arguments, and very shortly state why I think that this weir should be sustained and the order below reversed. I think that Mr. Longfield, in his very able argument, most properly admitted that, in 1857, when the new lease was made to John Griffin, this weir was legal; and what are the present state of facts? The lease so made is still subsisting; John Griffin is still in possession of the land adjoining, and has fished the weir ever since. Although he did not take out the original licence to fish, it appears most distinctly that, by some arrangement or partnership as it was called, he is the person who has always fished the weir. The man who has thus used this weir from 1857 is the person we find in occupation of the adjoining land under a lease; and without further going into the general case, I feel that that very short and simple view of it enables us to sustain the legal right of this party. We are fully authorized, I think, in maintaining the weir ordered by the majority of the Commissioners to be abated upon John Griffin's appeal, and we will make an order accordingly.

"Judge Hayes.—I was much taken with the able argument of Mr. Longfield, and for some time inclined to go with him; but I am very willing now to yield my opinion upon considering the way in which the case has been so clearly and so simply put by my brother O'Brien. I entirely concur in the view put forward by him, that the appeal in this case must be allowed, and the decision of the Commissioners, or rather of the majority of them, so far as John Griffin is concerned, must be reversed.

"Judge Fitzgerald.—I am most happy to be able to agree with the other members of the Court, and to take the view adopted by the learned third Commissioner, who differed from his brother Commissioners. I think that this weir was legally erected and used in 1862, and should therefore be maintained. I confess that I would have been struck by Mr. Longfield's very able argument if it had not been so ably answered. This weir must be upheld.

"The Chief Justice.—The able argument of Mr. Longfield pressed my mind so strongly and powerfully, that, I confess, until I conferred with my learned brethren, I was rather disposed to concur with the order of the Commissioners, but where the opinion of the Fishery Commissioners was a divided one, and the majority of the Court had no hesitation in concurring with the opinion of the dissenting Commissioner (Mr. W. O'Connor Morris), I felt that I could not refuse to uphold this view."

One point in this case illustrates a difficulty under which we have laboured. We have not been represented before the Superior Court; counsel of the highest ability and standing have appeared in support of our decisions on behalf of the respondents named in the cases, but no one has taken part in the proceedings on behalf of the Crown, and we have therefore had no opportunity of bringing before the Court the views we had taken and the reasons which had influenced our decisions. Points, in our opinion material, have in consequence been abandoned without argument. Thus in this case counsel appear to have admitted that when the new lease of 1857 was made the weir was legal. This is entirely opposed to our view. We held that the moment Patrick Griffin ceased to occupy the adjoining land, his right to use the weir ceased also. He had, it is true, the consent of the landlord, but the landlord has no power under the Act to give that consent to any but an occupier of the land for a term of at least fourteen years. Patrick Griffin's title to this weir therefore failed; and supposing John Griffin to have been the person who in law used the weir after 1857 (though it is difficult thus to regard him after the decision of the Court that a weir is an incorporeal hereditament), he had no consent in writing, as required by the Act, and could not therefore legally use a weir.

We cannot but think that if we had been represented before the Court, their judgment might in other cases have been different. As for instance, in the cases already given, where we found, acting as a jury, that the weir was injurious to the public right of fishing—a term used by us as identical with that of "a common nuisance." So, too, in the Mount-Trenchard case, Mr. Justice Fitzgerald stated when Mr. Justice O'Brien had given the judgment of the Court, "that if the Fishery Commissioners had decided that Lord Monteagle was not in possession (? occupation) of that strip of land he would have been very slow to interfere in reversing their decision when he recollected that they had such superior means of judging. He did not think they did decide or intended to decide that, and what they decided really was that Lord Monteagle was not in the occupation of the arable or pasture land." We did decide that Lord Monteagle was not in occupation of the arable land; but our statement of case also stated that "the evidence did not prove that the appellant was in occupation of the said space." In another case our decision was reversed without argument on the supposition that it was ruled by the decisions referred to respecting the meaning of the word "land," and the incorporeal nature of a stake net. Both these points were raised in the case; but there was yet another on which we decided it. The net in question was erected in fact by a Billingsgate fish factor, who held the net without a lease, and proved his occupation of the strip of shore adjoining, for the purpose of his fishing. By the ruling of the Court in the previous cases, the person who in law erected the weir was the chief landlord; by their ruling also the strip was land, but this strip was in the occupation of the fish factor and was declared to be so in the statement of case. Being land it could be disposed of, parted with by the landlord, without a lease; it had been so parted with, and therefore the landlord, the erector in law of the net, was not in occupation of one inch of land of any kind, and his title was bad.

Erroneous, however, in these respects as the Court of Queen's Bench have decided our reading of the Acts quoted to be, the reversal of those decisions has but little affected the result of our labours. We have more than once expressed our surprise at the reckless disregard of the law exhibited by the vast majority of the weir-owners. As we stated in our Report of last year, our inquiries have shown that the Act of 1842 has been universally abused; "nor have we commonly found a net offending against it in one particular only. Under its sanction, assumed by the weir-owners and unquestioned by the authorities, nets were illegally erected wherever they could be successfully fished, and its provisions were observed or disregarded as the circumstances peculiar to each net rendered expedient." We gave an instance of a net fished without title that was also injurious to navigation, that interfered with the public right of fishing and projected beyond low water mark—four distinct offences under the Fishery Acts. We give another now, where our decisions, appealed against, were in part affirmed, in part reversed, as illustrating the different views held by the Commission as constituted at the time of the inquiry, and the result of the ruling of the Superior Court.

A proprietor of land adjoining Clonderalaw bay erected four stake weirs. He fished them

himself, and abandoning one as illegal, he claimed before us a right to the three others under both the 18th and 19th sections of the Act of 1842. The evidence on the question of title it is unnecessary to state, for the case in this respect turns on the "land" point already described. As regards No. 1 weir it was further proved that it projected from a small neck of land forming one side of a harbour in daily use by the turf-boats, that this harbour was resorted to as a harbour of refuge by these boats, and that they had been constantly obstructed in passing in and out of it by the weir.

With respect to weirs Nos. 2 and 3, it was proved that the whole of the fishing portion of the one projected beyond low water mark, and that an undefined portion of the other did so also.

The Commission was divided in opinion. The majority decided that there was no title under either the 18th or 19th section, that No. 1 weir was injurious to navigation and must be removed; that No. 2 must be removed for its projection beyond low water mark; and reserved their decision as to the projection beyond low water mark of No. 3 for further evidence as to the extent of the excess, in case the Court above should decide that the title to it was good, and that such evidence was required.

The Commissioner in the minority held that there was a good title under the 19th section—that No. 1 weir was injurious to navigation, and that a passage of 60 feet should be opened in it; and that the projection beyond low water mark did not require the abatement of either No. 2 or 3.

The Court above ruled* in favour of the title under the 19th section, holding the sea-shore to be land adjoining the sea-shore, as in previous cases. They upheld the order for the removal of No. 1, as injurious to navigation, and of No. 2, as projecting to the extent described beyond low water mark; and they declared so much of No. 3 to be legal as did not project beyond low water mark. Thus, of three weirs, two are ordered to be removed, and the third will suffer a curtailment, on the amount of which depends its existence as a fishing engine.

We have dealt at length with the inquiry we have instituted into the legality of fixed engines in tidal waters. Forming, as it does, the more special part of the duties assigned to us, it seems to require from us detailed and particular notice. The importance also of the subject, the difficult as well as onerous nature of the task we have performed, the different opinions on some points of law entertained by the members of the Commission as at one time constituted, the sustainment of many of our decisions, the reversal of some others—all seem to demand from us a full account not only of the proceedings of the Commission, but of the views under which we have acted. We have therefore set out those views in every case where the Court above has quashed our orders, and we have further as succinctly, but as clearly as we could, stated the evidence, the arguments, and the decisions of the Court, without which it would have been useless to refer to the cases. There remains for us to give the final result. In 1863, before the Act was passed, 426 fixed engines were fished in Ireland—some of these were abandoned on the passing of the Act without any defence; but we tried 282 cases; we found only 26 legal nets; from our decisions there were 66 cases of appeal; of these 8 were withdrawn; 20 have been upheld, and 6 have been referred back to us for further inquiry. By the reversal of our judgments on the points we have described, 11 more nets have become legal, and 21 appeals remain undecided.

Stone Weirs.

We described in our last report the state of the law with respect to stone weirs. It is our duty to institute an inquiry into the legality of each of these engines. The greater part of this task has been completed, but has left us nothing of much importance to refer to. The fixed engines in fresh waters, unlike those in the tideway, are of ancient title and construction. The erection of a new weir would have so immediately intercepted the fish from the one next above it that the owner of the ancient and legal structure would probably have at once required its removal; and perhaps a still stronger reason for the observance of the law regulating fixed engines in the fresh waters is to be found in the absence of temptation to break it. When the opening of distant markets and the consequent rise in the price of fish stimulated fishermen to make new efforts for their capture, the engines invented for the purpose were erected in the estuaries and on the sea-coast. The fish were thus taken before they entered the rivers, and the falling off in the value of the existing stone weirs was sufficient to prevent the erection of new ones.

So far, therefore, as our inquiries have yet extended, we have found no instance of a wholly illegal stone weir. But the owners of the weirs at Limerick, Waterville, Ballina, and Galway had alone complied with the law in all respects. The provisions with regard to Queen's gaps and spur walls have been rarely observed; but the titles are good.

* The order of the Court, though made, has not, in this case, been officially issued, in consequence of a motion standing on the books respecting it. We quote from the order as made.

The case of the great Lax weir of Limerick has alone excited any considerable public interest. The value of the property, and the notoriety gained by the numerous suits of law respecting it were, perhaps, the causes of this interest, rather than the difficulties or the doubts involved in the facts or points of law raised before us.

The right to maintain the weir was contested in every possible manner, but it seemed to us to be legal in each particular. As a matter of course, owing to the value of the property at stake our decision was made the subject of an appeal, and as this is still pending we shall now say no more on the subject.

5 & 6 Vic. c. 106, s. 41. 13 & 14 Vic. c. 88, s. 22. 26 & 27 Vic. c. 114, ss. 9 and 12. *Vide* App. 17, p. 49.

The duty prescribed to us of determining the position and dimensions of the gap to be made in each stone weir has been nearly completed. Simple, apparently, as are the provisions of the Acts respecting Queen's gaps, the minuteness of detail in those provisions, and the great variety in the physical features presented by the weirs has rendered our task one of no ordinary difficulty. Much local interest has been shown on the subject, and we have endeavoured to satisfy it by holding in all cases public meetings. Most of the gaps are now constructed, and if the regulations respecting them are observed, the stone weirs of Ireland will never again prove injurious to the fisheries.

Mouths of Rivers and Estuary Definitions.

13 & 14 Vic. c. 88, s. 44.

We have also completed our definitions of the mouths and estuaries of the salmon rivers of Ireland. The result has in one respect not been satisfactory. Provisions of the Acts prohibit draft net fishing "for salmon or trout within half a mile seawards, or inwards of the mouth as defined by us, of any river less than a quarter of a mile broad, except by the owner of a several fishery within the limits thereof." The object of this restriction is to protect the fish at the entrance of narrow rivers, where, in dry seasons especially, they are greatly exposed. The regulation is provident, but it is much abused. By recourse to the restriction, the public are often ousted from a long-used fishing-ground, and by the plea of the exemption, a "several fishery" is carved out for some neighbouring proprietor of land. Any man fishing on his common law right within the prescribed limits is at once fined; but the proprietor claims a several fishery, denies the right of the magistrates to try the question of title, and no single person has sufficient individual interest in the matter to incur the expense of an appeal to a superior court. We refer elsewhere to a case in point at Kenmare, where the public actually fished without hindrance within the prohibited limits up to the publication of our definition.

Vide post page 15.

Complaints of a similar abuse of the law have been made to us from the Bundrowes, the Carragh, the Cashen, and other rivers. Whether these are as well-founded as the case at Kenmare would appear to be we cannot say; but we have been strongly pressed to ask for authority to make an inquiry into these claims similar to that we have so nearly completed into the titles of fixed engines. Such a task at the present moment would be an easy one; but in a few years hence we have little doubt that so many claims of this nature will be preferred that the fisheries will suffer seriously, and the question will present a very difficult aspect.

Vide post page 20.

It would be well at the same time to ascertain the number of exemptions that can be legally claimed from the restriction imposed on fishing at night in fresh water by owners of the several fishery next above the tidal flow.

Local Management.

We referred last year to the local management of the Salmon and Inland Fisheries. We described how a fund was raised by the imposition of a licence-duty on each engine used for the capture of fish—how the persons who paid such duty possessed, in proportion to the amount they paid, votes for the election of conservators, and how the elected conservators formed, with certain magistrates having a specified interest, a local Board, authorized to apply the fund collected within their district to the expenses of the management and protection of the fisheries therein.

We pointed out such defects in this system as had fallen under our notice, detailed some abuses of which we were cognizant, and called attention to the state of the Limerick district, as being at once the most important in Ireland, and the most conspicuous for its mismanagement.

11 & 12 Vic. c. 92. 13 & 14 Vic. c. 88.

The experience of the past year has shown not only that we were justified in acting on the information we had received respecting the affairs of this district, but that the complaints made to us fell short of the abuses existing. We believed that the Acts constituting the Boards and conferring on them authority, had been evaded; we found that they had been disregarded by the very persons whose duty it was to uphold them. We doubted the efficiency and fairness of the administration. It was proved by its own confession to be unable to check the most open illegal fishing, and, active in places from whence it derived no support, we found it permitting the most glaring infringements of the law to continue

unchecked in the parts of the river fished by the persons who returned the working majority of the Board. Our report of last year called forth a protest from the Clerk of the Board, containing an allegation that we had been misled by incorrect information, and a demand addressed to the Chief Secretary for further inquiry. By the orders of the Chief Secretary we held that inquiry; we were occupied for two days in taking evidence on oath, and closed it only when the conservators present and the solicitors representing the Clerk and complainants had exhausted the evidence they had to tender and the observations they had to make. The results have been stated at length in a special report, which is given in the Appendix. We shall therefore only now refer to such points as bear on the changes in the law we believe to be necessary, and presently recommend. It was proved at this inquiry that the Fishery Acts had been disregarded in the following particulars :— *Vide post* page 50.

1. The Act of 11 and 12 Vic., c. 92, declares by whom licences shall be distributed, and requires security to be taken from such persons.

The Clerk acted as distributor of licences without authority, and did not give the security required.

2. The same Act declares that before an engine is used it must be duly licensed.

Fixed nets commence fishing on February 12, but the Board resolved that the licences for them need not be taken out until May of each year ; and in 1863 the issue of these licences was delayed by the Clerk until some time unascertained, after May 29, an election of Conservators taking place, and being hotly contested in the beginning of the following July.

3. The same Act requires that accounts of the sales of licences containing information on certain points shall be furnished to the Commissioners annually, or as often as they require.

Such accounts were not kept, and the information they should have given could not be obtained.

4. The same Act requires that the licences shall be issued in a form prescribed by the Commissioners.

The form prescribed gave, on the counterpart of each licence, the heads of information required in the accounts ; the licences were so issued, but the counterparts were destroyed.

5. The Act endeavours to provide for the representation of each interest by dividing the district into electoral divisions, assigning votes in each division to the owners of engines on the licences taken out within it.

By the system of issuing licences adopted this intention was defeated. The licences for engines situated in a division where the dominant interest was all-powerful, were taken out in another where the same interest was less strong. By the votes so transferred the legitimate majority of the latter division was outnumbered, and Conservators favourable to the stronger interest were returned for both divisions. The licence-books proper to one division were even sent into another to be used there by the distributor, and the conservators of the river Fergus were returned by the eel-weir licences of the Shannon.

6. The Acts impose minimum penalties on offenders in certain cases.

The Board in some instances remitted the penalties; in others the Clerk, acting for them, did not enforce them on payment of half, or a part, or none, as agreed on between himself and the persons convicted.

For the explanation of these matters given by the Clerk, for a description of the provision of the Acts, and the consequences of these abuses we refer to the report in the Appendix. It is sufficient to add here that the provisions we have enumerated as disregarded or evaded, with the exception of the last imposing minimum penalties, form part of the scheme for the election of conservators, and that their disregard or evasion would enable the Clerk improperly, and without risk of detection, to influence the elections. The extent to which his interference was carried, or whether he did interfere, could not be determined, for the Clerk could remember nothing that could throw light on the subject, and the documentary evidence which an observance of the Acts would have afforded us had been destroyed with his consent, given after he had asked for inquiry. But it was proved that the conservators chosen by the fishermen from a short distance above Limerick, down to and including the fixed net district, returned the working majority of the Board, from whom the Clerk derives his appointment, and that fishing, illegal in its character, notorious in its conduct, and scandalous in its amount, was suffered to prevail for the last two years in that portion of the river. It was also shown that the Board had practically entrusted the protection of the fisheries to the Clerk, and that the force employed and means taken by him to check this poaching were inadequate, and of a character that could not but be useless. *Vide post* pages 50-55.

It is gratifying to know that the exertions of the Coast-guard, and of the bailiffs em-

ployed by two bodies independent of the Board, have done much to stop this scandal; but it is almost a sufficient comment on the administration of the Clerk to state that whilst, during the two seasons in which illegal bag-net fishing has been carried on, his bailiffs have seized eight bag-nets, twenty-five have been taken by the other forces we have mentioned, and that whilst the Board and its servants have not obtained a single conviction for offences committed in the fresh water fished by the snap-net men immediately above Limerick, the bailiffs of some proprietors of fisheries, who have formed a Protection Society, successfully instituted thirteen prosecutions against those men, and that amongst these convictions two were obtained against one of the two bailiffs appointed by the Clerk to watch that part of the river.

There can be no doubt that such abuses as these could not have occurred if the Board had kept the management of the fisheries in their own hands. Our report on the state of the Limerick District would not have been filled with an account of the conduct of the Clerk, nor would "the temptations to do wrong," which that officer declared to us persons in his position were exposed to, have existed, if the public fund, held in trust by the Board, had been administered by the Board as a whole, and not by their Clerk acting under the authority of a portion of it. It is easy to understand the Clerk's complaint—that a man in his position, dependent for the retention of his office on the persons whom it is his duty to detail bailiffs to watch, and to prosecute when detected, has no easy task to perform, and its full difficulty, in the present case, will be seen when we add that some of the members of this Board, who were regular in attendance at it, have been convicted again and again for breaches of the fishery laws; and that the Board and their clerk have even subsequently exercised your Excellency's prerogative, and, as we shall proceed to show, have in several cases remitted the penalties so imposed.

For much of this the extent, and if we may so call it, the geographical difficulty of the Shannon District, has to answer. The business of the Board is transacted at Limerick. The Shannon runs north and south, the railways east and west. The communication, between all parts from Killaloe downwards, into Limerick is easy and regular; from Killaloe upwards it is most difficult, tedious, and expensive. The result is that a large portion of the river is practically unrepresented, and that many conservators have been ignorant of, and unable to check a state of things they would not for a moment willingly have permitted to continue. In theory the Act for the formation and direction of Boards (11 and 12 Vic., c. 92) was excellent. By the subdivision of the district, the representation of each interest in it was provided for; and rod men and net men of all classes could meet and determine on the steps to be taken for the general preservation of the river. But in practice one interest became all powerful, and its power was secured and continued by a system of action contrary both to the spirit and to the letter of the Act.

The remedy proposed by a deputation to us of the Conservators and by the Clerk of the Limerick Board, as well as by other district clerks, was, that the officers of the Boards should be made independent of them, and subject only to some higher authority. We are much opposed to any unnecessary interference with the local Boards; but if the public funds intrusted to them are not properly administered; if the conservators, regarding their office as absolving them from the primary duty of obedience to the law, refuse to enforce it, and do not hesitate to break it; if their servants complain that they cannot discharge their duty and retain their place, and others keep their office notwithstanding or perhaps by reason of their disregard of the Act, it is time for Parliament to interfere. We have shown in the report given in the Appendix, that the non-observance, in the Limerick District, of certain provisions of the Act, have rendered it impossible for us to perform the duty imposed on us of seeing that the funds have been properly collected; in another district no account of the expenditure has been kept for years, and the remonstrances we made last year has produced no change for this; in another we called the attention of the Board in vain to their re-appointment of their head bailiff, who had been convicted of selling licences without authority, and of embezzling the money he received.

Vide post pages 50-55.

Again, in Limerick we have found the funds seriously diminished by an illegal and most improper arrangement made between the Clerk of the Board and the fixed net owners prosecuted by him. To take one instance; on a single occasion twenty-one convictions were obtained against fixed net owners for non-observance of the weekly close season. The Act requires "that the netting of the leader of each fly or other fixed net shall, during such time, be raised and kept out of the water." The minimum penalty imposed for a breach of this provision is £10. The penalties are the property of the Board and the prosecutor; but the Clerk acting, as he states, on the advice of the solicitor of the Board, did not enforce them; here, at once, was a sum of £210 belonging to the Board, for they were also the prosecutors, remitted to fixed net owners. The explanation given by the Clerk is that he wished to obtain a decision as to how much of the leader must be removed under the provision we have quoted. In another similar case a different

excuse is given for the non-enforcement of the penalty. The real point at issue is alleged to have been the character of the nets in question. The Act imposed a different duty on stake and on fly nets. It also requires a different method of observance of the weekly close season by these two kinds of nets. The Clerk states that the amount of licence duty to be paid was the point in dispute, and to determine this he prosecuted for a breach of the weekly close season—seeking not a penalty, but a precedent on a doubtful point of law. It is difficult to understand why it should be sought to enforce one provision of the law by a prosecution instituted on another, when the evidence for and the defence in each case must be directed to the same point, viz., the character of the net. But the process of reasoning which concludes that because an Act is broken in two respects, the penalty attached to each offence should not be enforced in either, is not intelligible at all.

The Act of Parliament imposes a minimum penalty of £10 on any person committing an offence against the weekly close season. In twenty-one cases on the one day referred to, and in eleven cases on the other, convictions were obtained, and the non-enforcement of those penalties was a repeal by the Clerk, at the cost of £320 to the funds of the district, of the minimum penalty imposed by the Act.

We regret to say that the minute books of the Board show a number of similar cases, and that this disregard of the law has been invariably in favour of the dominant interest on the Board, whilst they also prove that the explanation of the Clerk in either case, absurd as it is on the face of it, is not valid in fact. He sought, he states, as to the first case, to obtain "a precedent for the further guidance of the weir owners," and "his object having been fully attained, no further steps were taken." Yet, in spite of the precedent, we find another prosecution within three months for the same offence, followed in the same way by a conviction and the non-enforcement of the penalty, and the same excuse is again given almost word for word. Further on it appears that one of the persons who was fined on the first occasion we have referred to, was, being a conservator, fined again seven times on the second, the offence, as we have said, being the same, although a somewhat different excuse is offered for the remission to him of penalties to the amount of £70. Another person, convicted in 1861, "as a precedent," is again convicted four times in 1863, and the £40 penalty is again remitted. In all we find that a decision on this alleged difficult point of law has been obtained at Petty Sessions at a cost of £420 to the Board.

Elsewhere we have found the public fund and the powers of the Board made use of in such a manner as to enforce private claims as against public rights; we have seen conservators personally breaking the law; authorizing by resolutions practices prohibited by law, and diminishing in their own favour the amount of licence duty fixed by Act of Parliament. Thus at Kenmare we heard of prosecutions by the Board of the common fishermen for fishing within the prohibited limits fixed by our definition of the mouths of rivers, whilst members of that Board worked their nets unchecked within the same limits, under the claim that they are entitled to a several fishery in a part of the tideway that had been fished without hindrance by the public up to the time when the definitions we have mentioned were issued. When we were at Bantry a conservator of the district preferred a complaint against the lessee of a small fresh-water river, for killing salmon and trout with a net having an illegal mesh. We recommended the conservator to perform his duty and prosecute the offender; this person appeared immediately afterwards and accused the conservator of fixing a draught net across the tidal mouth of the river, not without foundation, for we found the net fixed as described. In the same district the conservators resolved that only one-half of the licence duty in force should be levied on the rods and nets used in the fresh waters, and they returned half the duty imposed by the late Act on bag-nets to the proprietor of a bag-net for whom the Chairman of the Board acts as agent.

Vide ante page 12.

We have given so many instance of the abuse of their powers by the Boards, by their members, or servants, that we need scarcely dwell on such minor evils as their want of energy and neglect; and yet it should be remembered that the fund intrusted to them is a public one, raised by a tax on all fishermen, and an *ad valorem* rate on fishery property, and that the public who pay that tax have a right to demand, and have the strongest interest in requiring its proper application. When we consider for a moment the state of the fisheries, it seems wonderful that neglect should anywhere be shown in their management. Persistent care brings such an enormous return. Everywhere the increase is so commensurate with the expenditure of money and trouble, that the strongest possible stimulus to exertion is on all sides held out. The Waterford district, for example, comprises three rivers of almost equal extent and equal merit, and there was a time before any care was taken of the fisheries, when the three were almost equally valueless. Since then the Suir has been protected, the Nore and Barrow neglected. From the Suir we hear that notwithstanding the drought of last summer so many fish had not been seen in it for years, whilst their absence from the

other two rivers has for long been a source of general complaint.* The largely increased value of the Moy and of the Galway rivers, since their proprietors exercised a wise liberality in their cultivation, are matters of notoriety. From Waterville we are glad to be able to report a similar success as attending similar measures. The proprietor of the stone weir on it, although only fishing four days a week, has never had a better season; and this gentleman assigns as the cause for the improvement in a year of general scarcity, that he employed a number of bailiffs in the winter to protect the breeding fish. And yet, in the face of such examples and of numbers of others that we have not space to quote, we find a district like Cork, possessed of such a river as the Lee, yielding less and less fish, because the most evident and necessary precautions for their production are neglected. Three years ago the Corporation of Cork erected, under the powers conferred on them by Acts of Parliament, works for the supply of the city with water from the Lee. For an average of eight months in the year these works consume the whole volume of the river. It is scarcely necessary to say that every fish that enters the Lee during that time must be killed, and that no river can stand such a drain on its resources. But it is our duty to add that ordinary care on the part of the conservators or their officers would have prevented the serious loss already experienced, and nearly the whole of the outlay now become indispensable.

5 & 6 Vict., cap. 106, sec. 63.

The Act of 1842 requires that in all dams subsequently constructed, passages should be kept open for the free ascent and descent of the fish. If the attention of the Corporation had been called to this provision at the proper time, we have no doubt that they would have constructed an effective pass when the weir was repaired; indeed, under the terms of the Act, they would probably have been required to do so. We have now represented the urgent necessity for such a pass to the conservators and the Corporation, we have prepared the necessary plans, and trust that no delay may be permitted in their execution. If they are carried out we have no doubt of the result; if they are not, the Lee fisheries will be shortly extinct. In the same district a weir was rebuilt some few years since on the Carrigaline, a good breeding river, and was raised so much in height as almost completely to bar the ascent of the fish. The then Commissioners called on the miller to provide a passage, and sent, as the Act requires, a plan of the pass to be constructed. A pass was built at variance with the plan, and it is entirely useless. The miller has been convicted at Petty Sessions and on appeal, of noncompliance with the Act. The same miller has refused to erect the gratings required by the late Act to be placed before turbines. We have again and again been applied to by the Clerk for advice on these cases, and as often we have strongly urged that the Board should enforce the law. Counsel's opinion, taken as to the pass, recommends the same course, and shows how easily it can be followed; but the pass remains unaltered up to the present time, and the gratings have never yet been erected. We have even small hope that thus calling public attention to the Board will wake its members into life: for although they have recognised the declining state of the fisheries of their district, and by repeated resolutions shown that they justly attribute that decline to the impassable barriers on their rivers, they have limited their exertions to incessant appeals for assistance, and have done absolutely nothing to help themselves. Scarce a week passes without our receiving applications for Bye-laws, or copies of resolutions calling on us "to exert ourselves to procure changes in the law;" but existing provisions of the Acts of vital importance remain a dead letter.

This Board, however, is not singular in its neglect of the interests confided to it. We found, at Toome, this year, on the Bann, several eel-weirs close to the house of the Inspector of the district, which have no gap, as required by the Act, whatever. So, too, we have a complaint from the Ballyshannon District that the gap we prescribed in a fishing weir on the Bundrowes has never been made, and that the conservators do not interfere. The complainant, himself a fishery proprietor, a conservator, and thoroughly acquainted with the working of the Fishery Acts, states that the Boards are too often interested in the maintenance of the abuses which it is their duty to reform, and that the law can never be enforced unless they are subject to control. In the present case, he adds, that he cannot get even a bailiff of the district to examine the weir or to interfere; that the run of the fish is almost completely stopped, and that a draft net is used at the mouth of the river immediately below, although, as we are given to understand, there is not even a *primâ facie* case to support the claim to a several fishery, necessary to sanction such a mode of fishing.

Even where no improper motive has existed, erroneous notions of the object with which the funds have been raised have led to a most unwise distribution of them. Thus, at Waterford, a district remarkable for the excellence of its management, we found that the great proportion of its funds had been hitherto expended in the lower waters in the belief apparently that each subdivision had the first right to the expenditure within it of the amount

* We have just heard, however, from the Barrow, on which a Protection Society was formed in the autumn of 1863, that the spawning beds were this winter "alive with fish." So speedily do the results of protection appear.

contributed by it to the general fund, and that its interests would be best secured by such a system of allocation. It should be needless to point out that the lower waters are indebted to the upper rivers for their supply of fish, and that the better the management the greater is the comparative amount expended on the protection of the breeding beds. It may be necessary to incur at times an unusual expenditure in putting a stop to notorious poaching in the lower waters, such as we have described as existing in the Shannon, but such an allotment of the funds of a district as was here made in 1863, apportioning £476 to the lower, and £280 to the upper waters, offends against the first principles of salmon preservation. We pointed this out to the Board, and are glad to add that the mistake has been already corrected, and that the admirable example of energy and good management long shown on the Suir by individual Conservators, who, with others having an interest in the river, have formed a Preservation Society, seems about to be followed on the Barrow.

It is necessary to refer to one other subject of great importance to, and closely connected with the the good management of the fisheries. We allude to the class of water bailiffs generally appointed by the Boards. The work intrusted to these men is hard, and it exposes them to much temptation. They must be out in all weathers, and at all hours; they must have the tact to detect and the courage to seize the poachers, the honesty to refuse money, and the power to resist whisky. Strength then, both moral and physical, courage, acuteness, and honesty are needed; but as the price offered for these qualities is of the most miserable description, it is not surprising that the bailiffs—although, no doubt, some good men are employed—are seldom remarkable for their merits. Some of the Boards, the Wexford, Limerick, and Waterford for example, have raised their wages, and give as much as a shilling per diem, and in some instances even more; but in Connemara the payment made is 50*s.* or £3 per annum; in Skibbereen it is 2*s.* 6*d.* per week; in Letterkenny two of the bailiffs receive £2, and one 10*s.* a-year, and in the Bann we met a bailiff who had received wages for seventeen years, at the rate of £5 per annum. The bailiffs, unable to live on such a pittance, are compelled to have recourse to some other means of subsistence; and it follows that as the wages are scarcely worth the keeping, very little effort is made to keep them. We have had complaints from the Bush and the Bann that the bailiffs act as servants to the rod fishermen, and thus assist rather than restrain them from committing offences. On one occasion we found a bailiff acting as a scout, and he ran before us to warn a person of our approach, who was snatching salmon under a fall we had gone to visit. At times, too, the men are appointed as bailiffs on a portion of the river where they fish themselves. Thus in the fresh water above the junction of the tide on the Shannon, one of the only two bailiffs appointed to stop the illegal fishing at night shared with the persons committing the offence the profits arising from it.

Vide App. No. 12, pp. 42–45.

It is not often that so gross a case as this occurs, but that it is possible, and is defended, shows the necessity of some power of compelling the Board to regard and their servants to respect the interests intrusted to their charge.

In this case great complaints were made to us, and through us to the Board, for two seasons, of the open and notorious illegal fishing that was carried on night after night. The circumstances of the case are fully set forth in our report on the state of the Limerick District. The part of it material to our present subject is, that the guardianship of the portion of the river in which this poaching was alleged to be carried on, was intrusted to two men only. Of one we have little knowledge, as, though summoned, he did not appear. The other had a share in the fish caught in the place in question. In consequence of the numerous complaints made, he resigned his appointment as water-bailiff, and has since been twice convicted of offences committed within the part of the river included in his beat. As stated elsewhere, thirteen convictions have been obtained by the Shannon Preservation Society, a body acting independently of the Board, for illegal fishing of the description complained of, but not one by the Board. The appointment of this man to act as bailiff in the place in question was justified at a public meeting we held, by the Clerk, on the ground, that some three years ago his appointment as a bailiff was recommended by a then member of the Board, who is now a member of the Preservation Society.

Vide post page 50.

There may be instances where notorious poachers have made excellent bailiffs; and it may be often expedient to appoint men who fish habitually in one part of a river to protect the fisheries in another; but it shows an excessive amount of confidence in human nature, and is, perhaps, an unwise expenditure of money to pay a man to look after himself.

The Boards would, we believe, find but little difficulty in effecting a reform in this respect. Wages are only too low in Ireland, especially in winter, when the bailiffs are most required; and a very small addition to the weekly sum given to a labourer would enable the Board to command the services of the most honest, sober, and active men in

the neighbourhood. One good bailiff is worth several inefficient, half-starved, half-clothed, half-paid men, careless of an office not worth retaining, whose sympathy lies with the poachers, ready to go up the river, or down, or away from it altogether, as the one road or the other offers the best chance of a few pence or of a glass of whisky. Let the bailiffs be fairly paid in proportion to the work expected of them; let the permanent bailiffs be chosen from amongst those who have done the best service during the winter, and not only might men for the office be picked from the class from whence they are chosen, but each man would be anxious to retain a post which gave him fair pay and offered a prospect of constant employment, and he would perform his duty, because it was his interest to do so.

Recommendations for Amendment Bill.

The description we have given of the working of the present system of Boards of Conservators, and the instances we have referred to of abuse and neglect, will have sufficiently shown the necessity for a change in the law. As already stated, we are in favour of local as opposed to central management. But experience would seem to prove that the funds of the districts can neither be fairly nor effectively administered by local Boards formed on the present scheme. The members of those Boards are almost invariably too little or too much interested in the fisheries under their charge. Examples of that vice of the day which so often prompts men to accept an office without making any effort to fulfil its duties, are commonly found on Fishery Local Boards. The management thus too often falls exclusively into the hands of the persons who commit offences against the Acts, and are interested in the maintenance of abuses. The expense, too, of the present system is large. For instance, the salary of the clerk, travelling, and issue of licence expenses in the Limerick district alone, amount to £252, or about 20 per cent. on the gross receipts; and we have little doubt that Local Inspectors appointed and controlled by Government, paid partly or entirely by the district, would administer the public funds raised by the licence duties and valuation rate with far greater economy and efficiency than is now obtained.

If Ireland was divided into a few districts in the place of the twenty-one now existing, and a Local Inspector was appointed for each, the sum now distributed in small salaries among a number of clerks, much of whose time is given up to other business, would be sufficient to obtain the exclusive services of able men. The per-centage on the licences issued now allowed to the Distributors, with the salaries paid to the Clerks, irrespective of travelling expenses, amounts to upwards of £1,300, and would amply defray the cost of such a scheme. If these appointments were made by Government, the persons holding them would be beyond the reach of the local influence and control which now so constantly steps between them and their duty. We have already referred to the opinion expressed by Conservators and the clerks of different Boards on this subject, and will only add that we feel with them that it is absolutely necessary to render the persons whose duty it is to enforce the law independent of those against whom the law should be enforced.

Whether this object should be attained by such a radical change as we have suggested, or by amendments applied to the existing system, we leave for the consideration of your Excellency and of Parliament. We fulfil our duty by pointing out the evils we find existing, and indicating such remedies as appear to us to be applicable to the case. If a thorough reform in the management of the fisheries be thought desirable, we are satisfied that it can be effected without difficulty and with immense advantage; and we shall be ready to give any information required of us. If the present Boards of Conservators are retained, we beg to recommend that the following amendments should be made in the existing law.

Vide ante page 13.

1. It is absolutely necessary that the practice carried to such an extent in the Limerick District of polling in one electoral division, the votes derived from engines fished in another, should be prohibited. By an unscrupulous recourse to it the legitimate voters of any particular division may be and have been entirely unrepresented, and the unfairness of the practice and the injury arising from it is confessed by the persons who have the most facilitated its adoption. For this purpose the votes allotted to each engine by the Act, should be valid only in the division in which the engine is used.

2. No licence should confer a vote unless taken out at least two months previous to the day of the election.

In the absence of this restriction a large number of licences have been taken out on the day of an election, in order to secure the return of some particular person as a Conservator.

Vide ante page 13, and App. p. 51.

3. No licence should be sold by any persons other than those authorized by the existing Acts.

4. No servant of the Board or any one deriving any emolument under it, should be allowed to interfere directly or indirectly with the elections. *Vide ante* page 13, and App. p. 52.

5. In the event of a complaint as to the validity of any election, or of an improper return, or of the acceptance of invalid votes, there should be added to the power of inquiry now vested in our Commission, that of directing a new election to be held, of amending the return, or of deciding any other point in dispute, respecting an election. At the present moment the abuse may be proved; but there is no remedy. We have power to make regulations for the conduct of elections, but none to enforce them when made.

Secondly, as regards the Boards when formed:

6. The Boards as now, should appoint their own officers, under, if thought fit, similar provisions to those relating to the appointment of Poor Law officials; but disregard of the Acts of Parliament, embezzlement of the public funds, insufficient accounts, or gross neglect of duty, should subject them to dismissal, and such dismissal should disqualify any officer for re-appointment by the same Board. The Acts require that the Clerks of the respective Boards shall furnish to the Commissioners annually, or as often as they require, accounts of all moneys received and disbursed within the district. But this provision is not practically observed in any case, such accounts as are rendered being of the most general character. From Dublin, indeed, no account of the disbursements has been furnished for years; and when complaints from Limerick and Letterkenny gave us occasion to ask for the accounts of those districts they could not be supplied.

7. The conviction under the Fishery Acts of any conservator, should render him liable to be disqualified. We would not recommend that a conviction should absolutely disqualify him, because the offence might be a very venial one, or it might even be committed by his servant, for the purpose of the disqualification that it would entail.

8. The power, after due inquiry, of either dismissing such offending officer, or member of the Board, should be given to the Commissioners, subject to the approval of your Excellency.

9. The Commissioners should have power to direct prosecutions in certain cases, the expense to be borne by the funds of the Board.

We will mention a case showing the necessity for this provision. At Dublin, in the early spring of last year, large quantities of unclean salmon were publicly sold. We requested the Conservators to prosecute the offenders, but they would not act. The reason probably was that the fish had not been taken in the Dublin district, and they would not expend the district funds in prosecuting an offence, the injury arising from which was felt only in another river. Such policy is most short-sighted, and in the present case it was unfair as well as unwise, for no small portion of the funds collected within the Dublin district is obtained from the sale of licences on rods used outside its limits.

It will be convenient that we should here enumerate such other amendments in the present law as appear to us to be absolutely required.

10. Rod licences should not be transferable. By the wording of the Act it has been held that the rod is licensed, not the person using it. Thus one licence is sometimes made use of by three or four persons.

11. A rod-licence taken out in a district where any amount less than the maximum is paid for it should not be valid in a district where a larger sum is exacted.

We explained last year that the amount levied on licences varies in different districts, and that as a rod-licence, wherever taken out, is valid all over Ireland, many persons living in a maximum or £1 district were so short-sighted as to deprive their own district of this small contribution to its funds, and sent for their licence to a 10*s.* district.

We have no power to alter the rate of the licence duty except on the application of the District Board. We have received such an application from very many of the Boards who have understood that an increase of their funds was absolutely indispensable to the increase of fish. We believe that we should have brought about a general increase, but for the opposition of the Dublin Board. This Board issues rod-licences for 10*s.* They advertise that such licences are valid on every river in Ireland, and by the help of these advertisements, local position, and a low charge, they most unfairly swell their own receipts at the expense of other districts. At one time they even established agencies for the sale of their licences in another district, allowing the Distributor 50 per cent. on the price charged. The Cork Board also sent for sale last year Cork rod licences fixed at 10*s.* into the Limerick district, where the price was £1. The terms of the Act, however, enabled us to check this abuse. But the Limerick Board were driven, in order to protect their revenue, to the expedient of selling their £1 licences for 10*s.*, with a loss to their funds, as already shown, of £218 10*s.* The matter has excited much attention, and we have strongly recommended the proprietors of fisheries in the £1 districts, to be less liberal in the permission to fish, so generally and generously accorded to strangers in Ireland; and we are glad to say that in very many rivers that permission is now accompanied by the *Vide ante* page 5.

very fair requirement, that the person to whom it is given should take out a licence in the district.

Vide Report for 1864, page 16.

This action on the part of the proprietors does not, however, meet the difficulty, and as it is a serious one, we, for the reasons stated in our last report, respectfully press for the interposition of Parliament.

12. The onus of proving that fish purporting to be killed by the rod after the season for netting is closed are so killed, should lie on the person in whose possession the fish is found; and the sale of salmon in Ireland should be prohibited altogether when the netting season of the latest river is over.

Vide post page 22 (Close Season.)

This provision is very much required. As an instance of the advantage that may be taken of the law as it stands, we may refer to the Limerick District. During the netting close season of 1864 complaints were made to us that salmon taken by the netmen at Coonagh were openly sold in large quantities in Limerick. We called the attention of the Clerk of the Conservators to the matter, and were told by him in reply that the sale was perfectly legal.

Vide post page 22, and Report for 1864, page 16.

13. We request power to alter the close season fixed for rods, under the same regulations that the Act directs us to observe in altering the close season fixed for the far more valuable nets. The necessity for this amendment has been strongly and often pressed on us both in the last and present year, and our reasons for recommending it are given at length in our last report, to which we beg to refer.

14. One-third of the penalty levied on any person convicted of a breach of the fishery law should be paid to the person who is the means of bringing the offender to justice, and the other two-thirds to the Board.

The law on this point is in doubt, contrary decisions having been given by Assistant-Barristers on appeal.

15. Power should be given us to ascertain the validity of the claims to several fisheries set up at the mouths of rivers and in the fresh water, with the effect of defeating the provisions of the 13 and 14 Vict., s. 44, and 26 and 27 Vict., s. 24.

Vide ante page 12 (Mouths of Rivers, &c.)

Our reasons for this recommendation are already given.

16. It should be declared that water bailiffs, or other authorized persons, have power to search for illegal engines and to seize the same, under a Justice's warrant. We are informed that already, in some districts, the increase of fish in the upper waters has led to a corresponding increase in poaching, most difficult to deal with, as there is no power to seize the nets made use of.

By a provision in the English Act of 1861, similar to that which we now recommend, £700 worth of illegal nets and other instruments were seized under Justices' warrants, by the County Constabulary, in Cumberland and Westmoreland.

17. Lastly, we beg to submit a very important subject for your Excellency's consideration. The ascent of rivers in Ireland is in many places stopped, in others impeded by dams or weirs. The only limit to the productive power of a salmon river is the quantity of spawning ground it possesses, and in almost all cases the breeding beds are found in the greatest quantity and of the best quality high up a river, or in its tributaries. By these weirs access to the spawning grounds is constantly denied the fish, and a field capable of vast production consequently lies fallow. If it were possible to give a correct estimate of the loss of food and employment thus occasioned to the country its amount would be most startling. Nor does the evil stop here; each dam affords facilities for poaching, only too readily made use of. The fish, unable to surmount the obstruction, are collected beneath it at all times of the year, but especially as the breeding season commences, and in low water they are caught with the greatest ease. Two remedies are required. First, that proper and effective passes should be constructed in all dams, old and new; 2ndly, that no fishing of any kind should be permitted within fifty feet of a fish-pass, with the exception of the boxes in a fishing mill-dam.

Fish Passes.

5 & 6 Vic. c. 106, s. 63.

As far as the power to construct passes is concerned, thanks to some prosecutions successfully undertaken a few years since by the Board of Works, the law on the subject, though not clear, is generally sufficient. The constructors of all dams built or raised in height since the Act of 1842 are obliged to build passes, the proprietors of dams then existing to permit passes to be built. In either case we are directed to approve of the plan for the pass, and in the latter case to contract for its erection if the cost of the structure is placed in our hands. But herein lies the difficulty. The funds of the local Boards are in no case sufficient for the payment of bailiffs; and permanent improvements, such as fish-passes, are beyond their reach. The dislike of millowners to anything which may, however

remotely, affect their water-power is well known, and the proprietors of private fisheries seldom care to expend money on improvements from which the public in the tidal-waters must obtain by far the larger benefit. We are pressed strongly from many quarters to ask for a sum of money for the execution of these works. Public money has, it is urged, been spent in the construction of piers and small harbours for fishing-boats that never could produce so good a return as the erection of fish-passes would yield. The amount required would be small—the value of the fisheries consequent on such expenditure would be certain and great; and the public, both in food and in employment, would reap much advantage from it. We believe this work to be very necessary. We see no means of obtaining the necessary funds; and therefore, as in duty bound, we submit the matter to your Excellency's consideration.

We should, perhaps, add, as showing both the necessity of these works and the small prospect of their execution, that we have at the request of different persons prepared thirty-three plans of passes. The plans have been approved by the applicants, but only eight passes have been erected, three of which were constructed from plans previously drawn. No funds have been forthcoming in the remaining cases.

As instances of passes that have been successfully constructed since our last report, we may mention the pass at Fermoy, and that at Skibbereen. The first was attached to a new weir on the Blackwater. The last has been placed at Lurrega milldam, on the Ilen. A pass was attached to this weir some years ago of the square chamber form now so well known in exhibitions, but faults in its construction rendered it perfectly useless. Doubting the universal applicability of the square chamber pass, we suggested the erection of one of less regular form, of a ruder character, and cheaper construction, and we are informed that it is a perfect success.

Whilst on this subject we must refer to the passes on the Shannon. As we stated last year, two passes have been constructed by the Board of Works—the one at Athlone, the other at Tarmonbarry—on plans designed by that Board, and approved by us. Many complaints have reached us that both passes are failures. We have endeavoured to ascertain whether the complaints were well founded, and have reason to believe them. Visiting the passes, we found that they were not constructed in all respects in accordance with the plans we had approved; but subsequent examination has shown that though they do differ from the plans, the Athlone pass at all events does so in no material degree. The main reason of their failure is, that their gradient is too steep, having regard to the form of which they are constructed. We objected at the time to the gradient proposed. The Athlone weir did not permit of an easier incline, without in the opinion of the Board very considerable expense, and, perhaps, risk to the weir itself. The Tarmonbarry pass was changed to meet our views, and has a gradient of 1 in 5 as far as it extends, but its total length inside is 21 feet 6, and the fall at the weir is 7 feet, less 6 inches of depression in the weir at the upper end of the pass. The Board are willing, we believe we may say anxious, to improve these passes in any way, and we hope that they may be made efficient. Passes will be attached this next summer to the remaining navigation weirs on the Shannon. That they have not already been constructed has been owing to an unwillingness on our part to sanction plans drawn on the Athlone model, but we hope to agree with the Board of Works on a form of pass that can not only be built without difficulty, but which will be useful when made. We must add on this subject that these cases and the examination of other passes during the past year has confirmed us in our opinion, that a square chamber pass with a steep gradient is a perfectly useless structure. The nearer a fish pass approaches in design to a natural rapid or fall, the easier will be its ascent; but if such an imitation is impossible, and recourse must be had to the pass with chambers, the gradient must be easy to insure success. If the incline be easy, and the chamber of fair size, as in the first erected of this form at Deanston, in Perthshire, the pass invariably answers. If the incline be less than 1 in 5, and the chamber less than 5 feet square, the pass, unless under peculiar circumstances, such as a very short ascent, will as invariably fail.

When, however, the most efficient pass has been constructed, it is necessary that the fish should be protected in their approach to it. At the present moment fishing with a rod and line is permitted up to the very entrance. Men whose object it too often is to hinder the ascent of the fish, abuse this licence in such a way as to render the pass useless. Complaints have constantly reached us that the fish collected under weirs have been "snatched" by poachers pretending to fish with rod and line; and we have felt constrained to pass several by-laws this year, in order to check the practice. We have even heard that a pass on the Spiddal has been filled with stones, in order to facilitate this kind of poaching, and we think that the evil would be more properly met by a general provision declaring all fishing illegal within say 50 feet of a fish pass.

Vide post page 23 (By-Laws).

Pollution.

Vide Report for 1864, page 17.

As shown in our report of last year, the only material cause of pollution in Ireland is the discharge into the rivers of the water in which flax is steeped. We have nothing to add on this subject to our last year's remarks, and we only now recur to it for the purpose of again pointing out that injury to the fisheries is in this case effected at more than ordinary cost to the offender. Magistrates, in adjudicating on the cases of poisoning rivers by flax-water, seem at times to be influenced by the very mistaken belief that the interests of the flax growers and the fishery proprietors are antagonistic, and that by dealing leniently with the farmers they will encourage the growth of flax. But in truth the provisions of the law passed for the protection of the fisheries are to the full as necessary to the welldoing of the land. Flax, if the crop be cut and carried away, has a most exhausting effect; but if the vegetable matter separated from the fibre in the process of steeping and that of bleaching be returned to the field where the crop is grown, another may be sown without injury in the ordinary course of husbandry; and we observe, probably owing to the neglect of this necessary rule, that our reports show that less flax was grown in 1865 in the districts from whence the greater number of complaints against the flax growers for poisoning the rivers proceeded in 1864. In the Appendix we insert a circular we have published on this subject, explaining more fully the points we have now touched upon.

Vide post page 56.

Eels.

In another instance the leniency exhibited by magistrates to a certain class of offenders has been the subject of much complaint, and as the non-enforcement of the law in the cases referred to entails a great loss of food and acts most unjustly upon those interested in the fisheries in question, we think that it is our duty to notice it. Eels descend to the sea to breed in autumn, and their fry ascend the rivers in spring, their habits being exactly contrary to those of salmon.

5 & 6 Vic. c. 106, ss. 31, 37, 40, 73, 77, 79. 7 & 8 Vic. c. 108, ss. 2, 3, 4. 11 & 12 Vic. c. 92, ss. 8, 10, 13, 21, 22.

The eel fisheries of the Shannon and some other rivers are very valuable. They are the subject of various provisions of the Acts of Parliament. For instance, the protection of a close season is extended to them, and a penalty is imposed of not more than £10 on any person taking eel fry. The engines also used in their capture are subject to a licence duty, and the licence paid on them in the Shannon in 1865 was £180; but the Acts are not enforced, and proprietors of eel fisheries get no protection for their money. In spring the fry may be seen for weeks making their way up the Shannon in a thin but continuous black line, close to the edge of the bank. At Limerick they are taken in enormous quantities. The police constantly prosecute, and the Board does so frequently; but the magistrates impose penalties of 1*s.* or 1*d.*

By-Laws.

Sec. 91 of 5 & 6 Vic. c. 106, empowers us to make by-laws for the management, protection, and improvement of the fisheries. We have been repeatedly requested to exercise these powers, and a list of the applications we have received is given in the Appendix.

Vide post page 40.

Close Season.

Vide App. 4, page 36.

Reference, it will be seen, is frequently made to the dates fixed for the commencement and termination of the close seasons. The knowledge we have acquired of the state of the Irish fisheries induces us to think that this question requires a very full investigation. There is at present a great variation in the netting seasons fixed for the different rivers. Whilst considering how closely the season in force in one district affects the management of others, it is evidently expedient that the difference in the close seasons fixed, not only for Ireland, but for the rivers of the United Kingdom should be brought within the narrowest possible limits. The Severn fisheries, for example, have been much affected by the extended fishing season in Ireland. The intimate relation, therefore, between the different districts of Ireland has rendered us unwilling to disturb the existing seasons at all, until we had time to enter thoroughly into the question, and we purpose to do so during the present year. At the same time the subject can scarcely be satisfactorily dealt with in the present state of the law. Rod fishing is permitted from February 1 to November 1; and although such a season is in Ireland unpopular and excessive, in the opinion of the great majority of rod fishermen, we have not the power to alter it. The provision was taken from the English Act of 1861; but in England the sale of fish taken by the rod after the net season has closed is forbidden; in Ireland it is permitted. The market is thus kept open from February 1 to November 1, and at any time between those dates the poacher can readily dispose of his illegally netted salmon.

Vide ante page 19.

The other applications refer to a number of different subjects. Feeling that the powers conferred on us by the section we have quoted are of a very arbitrary nature, we have exercised them only in cases where the necessity for a remedy was absolute, and where a great concurrence of opinion was expressed by the persons whose property would be affected. Several local by-laws have been thus passed, with the view of checking the very objectionable practice of snatching salmon. Great numbers of fish are now killed under weirs, or in such a shallow channel as leads the fish from the tideway through Galway to Lough Corrib, by persons pretending to fish with a bait or a fly. The hook on a leaded line, covered perhaps with a prawn, locally termed a shrimp, is thrown across the stream, and by a snatch is driven into the side or such other part of the fish as it happens to strike. Snatching.

At Galway the water is extremely clear, and the salmon may be seen in rows covering the bottom from side to side of the narrow channel we have described. Snatching there is a common practice; and injurious, illegal, and unsportsmanlike as it is, we regret to say that it is carried on in the most open and unblushing manner. We have passed a by-law to prevent it, and it is to be hoped that the bailiffs will receive stringent orders to prosecute every offender. Great privileges have been given by the late Act to the rod fishermen, and if such an abuse as this is continued, it will be necessary for us to have further recourse to the powers we are intrusted with, and, possibly, to pass a by-law at Galway similar to those we have issued for the Shannon, by which all fishing is prohibited within the space under the weirs of Athlone and Tarmonbarry, where snatching was carried on.

Another by-law has been issued to prohibit a practice of a most destructive character. In the Bangor district it had become the habit to mend the roads with the gravel forming the spawning beds of the rivers. The injury thus occasioned was so great, that the Grand Jury of the county, in whom is placed the guardianship of the roads, addressed a memorial to us, asking for a by-law to prohibit the practice. Other similar applications have been made, one of which, in the case of the Liffey, we refused to act upon, as it was not proved that any serious injury had resulted from the removal of the gravel from the particular place in question. But we passed a by-law for this river, which has been already attended with good results. The tidal fisheries are worked by draft nets; they were of the immense length of 600 and 700 yards. The space suited for their use is very limited, the men interfered with each other, and were also enabled from the peculiar formation of the river bed, to take at certain tides almost every fish. We restricted the length of the net to 350 yards. The by-law came into operation at the commencement of the past fishing season. Seven nets only had been used in 1864, twelve were used in 1865; and so good was the season, that we have been already asked by one of the principal fishermen, who appeared in opposition to the application, to impose further restrictions on the fishing now permitted. Removal of Spawning Beds.

In the Appendix will be found detailed information on the following subjects:—

1. Result of inquiries held into the legality or illegality of Fixed Nets.
2. Result of inquiries held into Fishing Weirs.
3. List of rivers, the mouths of which have been defined.
4. Table showing the close seasons for salmon and trout in the different districts in Ireland, as fixed by Statute Law, or the order of the Commissioners.
5. Amount of licence duty received in each district, for the different fishing engines, for the year 1865.
6. Schedule of licence duties payable in each district on engines used for fishing for salmon.
7. Schedule of licence duties received by the Boards of Conservators for the years 1864 and 1865.
8. Applications for by-laws, rules, &c., received.
9. List of fishing weirs and fishing mill dams surveyed.
10. List of fish passes built, and of mill weirs, obstructions, &c., surveyed for fish passes.
11. By-laws, orders, &c., made.
12. Abstract of statements from Clerks of Boards of Conservators as to the state of the Salmon and Inland Fisheries.
13. Certificates granted for Fixed Nets.
14. Regulations for the elections of Conservators of Fisheries.
15. Quantity of salmon conveyed by the different railways for the year ending 31st December, 1865, and rates of carriage of salmon.
16. Abstract of by-laws, orders, &c., in force, relating to the Salmon Fisheries.

17. List of stone weirs used for salmon fishing, with their breadth, and the size of the Queen's gap or share maintained therein respectively.
18. List of Rivers—the tidal and fresh water boundaries of which have been defined.
19. Copy of report to Chief Secretary for Ireland on state of Limerick Fisheries, dated 7th September, 1865.
20. Circular issued calling attention to the injury caused by, and illegality of, flax steeping.

In conclusion we have to express our best thanks to the officers and men of the Coast-guard and Police, from whom the fishery interest have received much assistance of a most valuable character; and we cannot refrain from adding our personal acknowledgment for the information we have obtained, and the services that have been rendered us, by the Coast-guards on the Shannon, Blackwater, and at Waterford Harbour.

We have the honour to be,

Your Excellency's obedient Servants,

FRED. EDEN.
WALLACE HOUSTOUN.
R. J. LANE.

Dated at the Office of the
Special Commissioners for Irish Fisheries,
Dublin, 3rd February, 1866.

As I was not Commissioner when the trials of Fixed Engines, referred to in Division 2, took place, my signature does not apply to that division.

R. J. LANE.

APPENDIX.

Appendix No.		Page
1.	Result of Inquiries held by the Special Commissioners for Irish Fisheries up to the 1st day of January, 1866, into the Legality or Illegality of Fixed Nets,	26
2.	Result of Inquiries held by the Special Commissioners for Irish Fisheries up to the 1st day of January, 1866, into Fishing Weirs,	34
3.	Mouths of Rivers defined by the Special Commissioners, January, 1866,	35
4.	Table showing the Close Seasons for Salmon and Trout in the Different Districts in Ireland, as fixed by Statute Law, or the Order of the Commissioners, January, 1866,	36
5.	Amount of Licence Duty received for the Different Fishing Engines for the Year 1865, in each District,	37
6.	Schedule of Licence Duties payable in each District on Engines used for Fishing for Salmon, January, 1866,	38
7.	Schedule of Licence Duties received by the Boards of Conservators for the Years 1864 and 1865,	38
8.	Applications for By-Laws, Rules, &c., received by Commissioners,	40
9.	List of Fishing Weirs and Fishing Mill Dams surveyed by directions of the Commissioners,	41
10.	List of Fish Passes built, and of Mill Weirs, Obstructions, &c., surveyed for Fish Passes,	41
11.	By-Laws, Orders, &c., made by the Commissioners,	41
12.	Abstract of Statements from Clerks of Boards of Conservators as to the State of the Salmon and Inland Fisheries,	42
13.	Certificates for Fixed Nets granted by the Commissioners,	46
14.	Regulations for the Elections of Conservators of Fisheries,	46
15.	Quantity of Salmon conveyed by the Different Railways for the year ending 31st December, 1865, and Rates of Carriage of Salmon,	47
16.	Abstract of By-Laws, Orders, &c., in force relating to the Salmon Fisheries,	48
17.	List of Stone Weirs used for Salmon Fishing, with their Breadth, and the size of the Queen's Gap or Share maintained therein respectively,	49
18.	Rivers—the Tidal and Fresh Water Boundaries of which have been defined,	49
19.	Copy of Report to Chief Secretary for Ireland on state of Limerick Fisheries, dated 7th September, 1865,	50
20.	Circular relative to Injury and Illegality of Flax Steeping,	56

APPENDIX, No. 1.

APPENDIX,

RESULT of INQUIRIES held by the SPECIAL COMMISSIONERS for IRISH FISHERIES up to the 1st day of January,

No.	Where Fixed Net situated.	Description of Fixed Net.	Name of Person maintaining and using Fixed Net.	Name of Owner of Fixed Net, or of Land to which Net attached.	Name of Townland to which Net attached.	Parish.
1	Barrow, otherwise Ross, otherwise Nore and Barrow Rivers conjoined.	Head Weir,	Thomas Murphy,	John H. Glascott,	Dunganstown,	Whitechurch,
2	Barrow River,	Ditto,	Arthur Kavanagh,	Arthur Kavanagh,	Drummin,	St. Mullin's,
3	Barrow, otherwise Ross River, otherwise Nore and Barrow Rivers conjoined.	Ditto,	Joseph Hunt,	W. M. Glascott,	Mountanago,	Whitechurch,
4	Ditto,	Ditto,	Walter Sweetman,	Walter Sweetman,	Annaghs,	Shanbogh,
5	Ditto,	Ditto,	Michael and D. Cody,	—	Carrickloney,	Kilmakevoge,
6	Ditto,	Ditto,	James Doody,	—	Great Island,	Kilmokea,
7	Ditto,	Ditto,	Samuel Bennett,	—	Ditto,	Ditto,
8	Ditto,	Ditto,	Richard Cashen,	—	Shanbogh, Upper,	Shanbogh,
9	Ditto,	Ditto,	John Sherlock,	—	Great Island,	Kilmokea,
10	Ditto,	Ditto,	P. Shanahan,	—	Ditto,	Ditto,
11	Ditto,	Ditto,	George Kent,	—	Ditto,	Ditto,
12	Suir,	Ditto,	John Lynch,	N. Power,	Faithlegg	Faithlegg,
13	Ditto,	Ditto,	Hugh Treacey,	Ditto,	Ditto,	Ditto,
14	Ditto,	Ditto,	John Walsh,	—	Cheekpoint,	Ditto,
15	Suir, Nore, and Barrow Rivers conjoined.	Ditto,	John Lynch,	—	Coolbunnia,	Faithlegg,
16	Ditto,	Stake Weir,	Michael Dobbyn,	Marquess of Waterford,	Crooke,	Crooke,
17	Ditto,	Ditto,	Eliza Coghlan,	J. J. D. Coghlan,	Dromina,	Ditto,
18	Nore,	Head Weir,	W. F. F. Tighe,	W. F. F. Tighe,	Innistioge,	Innistioge,
19	Barrow, otherwise Ross River, otherwise Nore and Barrow conjoined.	Ditto,	Patrick Byrne,	E. W. Nunn,	Camlin,	Old Ross,
20	Barrow,	Ditto,	W. F. F. Tighe,	W. F. F. Tighe,	Kilconnelly,	The Rower,
21	Ditto,	Ditto,	John Eligot,	D. Burtchell,	Coolrainy,	Ditto,
22	Barrow, otherwise Ross River, otherwise Nore and Barrow conjoined.	Head Weir,	John Forrestal,	—	Carrickloney,	Kilmakevoge,
23	Nore River,	Ditto,	John Hunt,	Mrs. and Miss Vicars,	Brownsford,	Dysertmoon,
24	Suir River,	Ditto,	Paul Anderson,	N. A. Power,	Gorteens,	Rathpatrick,
25	Ditto,	Ditto,	Cath. and P. Moroney,	N. Power,	Drumdowney, Upper,	Ditto,
26	Barrow, otherwise Ross River, otherwise Nore and Barrow conjoined.	Ditto,	Michael Irish,	Dr. J. Mackesy,	Ballyverneen,	Ballygurrim,
27	Ditto,	Ditto,	Thomas Murphy,	Col. Chas. Kearney,	Kearney's Bay,	Kilcolomb,
28	Ditto,	Ditto,	Joseph Hunt,	Peter Strange,	Rochestown,	Ditto,
29	Ditto,	Ditto,	P. Hannebury,	Ditto,	Ditto,	Ditto,
30	Ditto,	Ditto,	J. Doyle,	J. Devereux,	Ringville,	Ditto,
31	Ditto,	Ditto,	J. Bolger,	Ditto,	Ditto,	Ditto,
32	Ditto,	Ditto,	W. Walsh,	Mrs. Bolton,	Drumdowney, Upper,	Rathpatrick,
33	Ditto,	Ditto,	J. Sullivan,	P. Hannebury,	Ballinlaw,	Kilcolumb,
34	Ditto,	Ditto,	John Brien,	N. Power,	Drumdowney, Upper,	Rathpatrick,
35	Suir River,	Ditto,	David Bennett,	Ditto,	Ditto,	Ditto,
36	Barrow, otherwise Ross River, otherwise Nore and Barrow conjoined.	Ditto,	James Butler,	Samuel King,	Fisherstown,	Kilmokea,
37	Ditto,	Ditto,	Pierce Cox,	Ditto,	Ditto,	Ditto,
38	Ditto,	Ditto,	James Kavanagh,	—	Ditto,	Ditto,
39	Suir, Nore, and Barrow conjoined, otherwise Waterford Harbour.	Scotch or Stake Weir.	A. Ryan, or Hayes,	Lord Templemore,	Duncannon,	St. James and Dunbrody.
40	Ditto,	Ditto,	M. Doyle,	Ditto,	Clonsharragh,	Ditto,
41	Ditto,	Ditto,	A. Stephens,	Ditto,	Ditto,	Ditto,
42	Suir,	Head Weir,	N. A. Power,	N. A. Power,	Gorteens,	Rathpatrick,
43	Shannon River,	Fly-Net,	Randle Borough,	Randle Borough,	Querrin,	Moyarta,
44	Ditto,	Stake-Net,	S. M'Auliffe,	Ditto,	Shangannagh,	Ditto,
45	Ditto,	Ditto,	William Kennedy,	John Cox,	Clarefield,	Ditto,
46	Ditto,	Ditto,	D. M'Auliffe,	Francis Keane,	Scattery Island,	Kilrush,
47	Ditto,	Fly-Net,	Francis Connell,	Ditto,	Ditto,	Ditto,
48	Ditto,	Stake-Net,	S. M'Auliffe,	Benjamin Cox,	Clarefield,	Moyarta,
49	Ditto,	Ditto,	J. Connell and D. M'Auliffe,	Colonel Vandeleur,	Carrowncalla S.,	Kilrush,
50	Ditto,	Ditto,	Francis Connell,	Francis Keane,	Scattery Island,	Ditto,
51	Ditto,	Fly-Net,	Ditto,	Ditto,	Ditto,	Ditto,
52	Ditto,	Ditto,	John Commins,	Colonel Vandeleur,	Inishbig or Hog Island,	Ditto,
53	Ditto,	Ditto,	James Connell,	Ditto,	Ballynote, West,	Ditto,
54	Ditto,	Ditto,	John Slattery,	Ditto,	Ballymacrinan,	Killimor,
55	Ditto,	Ditto,	S. M'Auliffe,	Ditto,	Lakyle, South,	Kilofin,
56	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
57	Ditto,	Ditto,	S. M'Auliffe and T. M'Namara.	Ditto,	Mount Shannon, West,	Ditto,
59	Ditto,	Stake-Net,	Marcus Sheehy,	Ditto,	Mount Shannon Wood,	Ditto,

No. 1.

1866, into the Legality or Illegality of Fixed Nets erected or used for catching Salmon in Ireland.

No.	Barony.	County.	Judgment of Commissioners.	Date of Judgment.	Whether Judgment of Commissioners Appealed against.	Judgment of Court of Queen's Bench.
1	Shelburne,	Wexford,	To be abated, as being injurious to navigation, and erected without the title required by the 5th and 6th Vic., c. 106.	17 Oct. 1863,	Appeal,	Appeal withdrawn.
2	St. Mullin's, l.	Carlow,	To be abated, not having been legally erected in 1862.	Ditto,	No appeal.	—
3	Shelburne,	Wexford,	To be abated, as being injurious to navigation, and erected without the title required by the 5th and 6th Vic., c. 106.	Ditto,	Appeal,	Judgment affirmed.
4	Ida,	Kilkenny,	Ditto,	19 Oct. 1863,	Appeal,	Ditto.
5	Ida,	Kilkenny,	Ditto,	Ditto,	No appeal.	—
6	Shelburne,	Wexford,	Ditto,	Ditto,	Ditto.	—
7	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
8	Ida,	Kilkenny,	To be abated, not having been legally erected in 1862,	Ditto,	Ditto.	—
9	Shelburne,	Wexford,	To be abated, as being injurious to navigation, and erected without the title required by the 5th and 6th Vic., c. 106.	Ditto,	Ditto.	—
10	Ditto,	Ditto,	To be abated, not having been legally erected in 1862,	Ditto,	Ditto.	—
11	Ditto,	Ditto,	To be abated, as being injurious to navigation,	20 Oct. 1863,	Appeal,	Judgment affirmed.
12	Gualtiere,	Waterford,	Ditto, and erected without the title required by the 5th and 6th Vic., c. 106.	21 Oct. 1863,	No appeal.	—
13	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
14	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
15	Gualtiere,	Waterford,	Ditto,	Ditto,	Ditto.	—
16	Ditto,	Ditto,	Ditto,	22 Oct. 1863,	Appeal,	Judgment affirmed.
17	Ditto,	Ditto,	Ditto,	24 Oct. 1863,	Ditto,	Ditto.
18	Gowran,	Kilkenny,	To be abated, as injurious to navigation,	26 Oct. 1863,	Ditto,	Ditto.
19	Bantry,	Wexford,	Ditto, and erected without the title required by the 5th and 6th Vic., c. 106.	Ditto,	Ditto,	Ditto.
20	Ida,	Kilkenny,	Ditto,	Ditto,	No appeal.	—
21	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
22	Ida,	Kilkenny,	Ditto,	26 Oct. 1863,	Ditto.	—
23	Ditto,	Ditto,	Ditto,	27 Oct. 1863,	Ditto.	—
24	Ditto,	Ditto,	Ditto,	29 Oct. 1863,	Ditto.	—
25	Ditto,	Ditto,	Ditto,	10 Dec. 1863,	Ditto.	—
26	Ditto,	Ditto,	Ditto,	10 Dec. 1863,	Appeal,	Appeal withdrawn.
27	Ditto,	Ditto,	Ditto,	11 Dec. 1863,	Ditto,	Ditto.
28	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
29	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
30	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
31	Ditto,	Ditto,	Ditto,	Ditto,	Appeal,	Special case stated—not yet heard.
32	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
33	Ditto,	Ditto,	Ditto,	12 Dec. 1863,	Ditto.	—
34	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
35	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
36	Shelburne,	Wexford,	Ditto,	Ditto,	Appeal,	Appeal withdrawn.
37	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
38	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
39	Ditto,	Ditto,	To be abated, as being injurious to navigation,	16 Dec. 1863,	Appeal,	Judgment affirmed.
40	Ditto,	Ditto,	To be abated, as being erected in narrow channel,	4 April, 1865,	No appeal.	—
41	Ditto,	Ditto,	To be abated, as being injurious to navigation, and being illegally erected—extending beyond low-water mark.	23 Dec. 1863,	Appeal,	Judgment affirmed.
42	Ida,	Kilkenny,	To be abated, as injurious to navigation, and erected without the title required by the 5th and 6th Vic., c. 106.	Ditto,	No appeal.	—
43	Moyarta,	Clare,	To be abated, as erected without the title required by the 5th and 6th Vic., c. 106.	1 Jan. 1864,	Ditto.	—
44	Ditto,	Ditto,	To be abated, as erected without the title required by the 5th and 6th Vic., cap. 106.	1 Jan. 1864,	Ditto.	—
45	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
46	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
47	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
48	Ditto,	Ditto,	Ditto,	2 Jan. 1864,	Ditto.	—
49	Ditto,	Ditto,	Ditto,	Ditto,	Appeal,	Judgment affirmed.
50	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
51	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
52	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
53	Ditto,	Ditto,	Ditto,	Ditto,	Appeal,	Judgment affirmed.
54	Clanderlaw,	Ditto,	Ditto,	Ditto,	Ditto.	Ditto.
55	Ditto,	Ditto,	Ditto,	4 Jan. 1864,	No appeal.	—
56	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
57	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
58	Ditto,	Ditto,	Ditto,	Ditto,	Appeal,	Judgment reversed.

APPENDIX, No. 1.

RESULT of INQUIRIES held by the SPECIAL COMMISSIONERS for IRISH FISHERIES up to the 1st day of January,

No.	Where Fixed Net situated.	Description of Fixed Net.	Name of Person maintaining and using Fixed Net.	Name of Owner of Fixed Net, or of Land to which Net attached.	Name of Townland to which Net attached.	Parish.
59	Shannon River,	Fly-Net,	Denis M'Auliffe,	Colonel Vandeleur,	Clookerry, West,	Kilofin,
60	Ditto,	Stake-Net,	S. M'Auliffe,	Lord Leconfield,	Erribul,	Kilfidane,
61	Ditto,	Ditto,	S. Cunningham,	Ditto,	Ditto,	Ditto,
62	Ditto,	Ditto,	James O'Neill,	William Ashe,	Shannakeabeg,	Ditto,
63	Ditto,	Ditto,	John Griffin,	James Kelly,	Cahiracon,	Kildysart,
64	Ditto (Clonderalaw Bay),	Ditto,	Daniel Molony,	Lord Annaly,	Kilkerrin,	Kilofin,
65	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
66	Ditto,	Ditto,	James Browne,	Ditto,	Lakyle, North,	Ditto,
67	Ditto,	Ditto,	D. Molony,	Ditto,	Ballina,	Ditto,
68	Ditto,	Ditto,	Ditto,	Ditto,	Kilkerrin,	Ditto,
69	Ditto,	Fly-Net,	Thomas M'Mahon,	Richard Barclay,	Ballyartney,	Ditto,
70	River Barrow, otherwise Nore and Barrow conjoined.	Head Weir,	Richard Hewitson,	M. W. Knox,	Kilmannock,	Kilmokea,
71	River Suir,	Ditto,	G. Giles,	G. Giles,	Kilmurry,	Rathpatrick,
72	Rivers Suir, Nore, and Barrow conjoined, otherwise Waterford Harbour.	Stake Weir,	James Ryan,	Lord Ely,	Duncannon,	St. James and Dunbrody.
73	Slade Bay,	Bag-Net,	W. Breen,	Ditto,	Slade,	Hook,
74	Suir, Nore, and Barrow conjoined.	Head Weir,	J. Hanlon and others,	Lord Templemore,	Nook,	St. James and Dunbrody.
75	Ditto,	Ditto,	Anthony Wallis,	Ditto,	Ballyhack,	Ditto,
76	Ditto,	Stake-Net,	Arthur N. O'Neill,	Lord Carew,	Woodstown, Lower,	Crooke,
77	Ditto,	Ditto,	Ditto,	Ditto,	Knockaveelish,	Killea,
78	Suir, King's Channel,	Ditto,	Mary O'Neill,	Mary O'Neill,	Knockboy,	Ballygunner,
79	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
80	Suir, Nore, and Barrow conjoined.	Head Weir,	John Hanlon & others,	Lord Templemore,	Saltmills,	St. James and Dunbrody.
81	Ditto,	Ditto,	Ditto,	Ditto,	Ballyhack,	Ditto,
82	Shannon,	Stake-Net,	Stephen Cunningham,	Bryan O'Loghlen,	Ailroebeg,	Kilfidane,
83	Ditto,	Fly-Net,	R. W. C. Reeves,	R. W. C. Reeves,	Poulnadaree,	Killimor,
84	Ditto,	Ditto,	Ditto,	Ditto,	Burrane, Lower,	Ditto,
85	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
86	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
87	Ditto,	Stake-Net,	Michael Colpoys,	Colonel Hickman,	Knock,	Kilmurry,
88	Ditto,	Ditto,	S. M'Cauliffe & John Brooks.	Ditto,	Ditto,	Ditto,
89	Ditto,	Ditto,	Eliza Hodnett,	Ditto,	Kilmore,	Ditto,
90	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
91	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
92	Ditto,	Ditto,	John Houlehan,	Ditto,	Carrowbane,	Ditto,
93	Ditto,	Ditto,	S. Pegum,	Rev. T. Butler,	Poulnadaree,	Killimor,
94	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
95	Ditto,	Ditto,	Henry S. O'Brien,	Henry S. O'Brien,	Portdrine,	Kilfintinan,
96	Ditto,	Ditto,	S. M'Auliffe,	T. R. Henn,	Slievedooley,	Kilofin,
97	Ditto,	Ditto,	T. Naughten & others,	E. T. Massey,	Ballycanauna,	Ballysteen,
98	Ditto,	Ditto,	M. Shaughnessy and others.	Lord Guillamore,	Courtbrown,	Askeaton,
99	Ditto,	Ditto,	S. M'Cauliffe,	Colonel Hickman,	Knock,	Kilmurry,
100	Ditto,	Ditto,	J. Browne,	Lord Monteagle,	Leahys,	Robertstown,
101	Ditto,	Ditto,	Ditto,	Ditto,	Durnish,	Shanagolden,
102	Ditto,	Ditto,	Ditto,	Ditto,	Foynes Island,	Robertstown,
103	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
104	Ditto,	Ditto,	Ditto,	Ditto,	Mount Trenchard,	Loghill,
105	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
106	Ditto,	Ditto,	P. Sheean,	Lord Clare,	Ballynash (Clare),	Robertstown,
107	Ditto,	Ditto,	M. M'Namarra,	R. Bateson,	Loghill,	Loghill,
108	Ditto,	Ditto,	John Griffin,	Thomas Royse,	Carrowbanebeg,	Ditto,
109	Ditto,	Ditto,	M. M'Namara,	Earl of Clare,	Ditto,	Ditto,
110	Ditto,	Ditto,	J. Browne,	C. Minchin,	Killacolla,	Kilfergus,
111	Ditto,	Ditto,	Margaret Putland and others.	Knight of Glin,	Caheragh,	Ditto,
112	Ditto,	Ditto,	Ditto,	Ditto,	Glin Demesne,	Ditto,
113	Ditto,	Ditto,	Ditto,	Ditto,	Farranmiller,	Ditto,
114	Ditto,	Ditto,	J. Browne,	Elizabeth Standish,	Killacolla (Barker),	Ditto,
115	Ditto,	Fly-Net,	W. B. Barrington,	W. B. Barrington,	Ballyhoolahan,	Loghill,
116	Ditto,	Ditto,	J. Browne,	Rev. R. Fitzgerald,	Ballydonohoe,	Kilfergus,
117	Ditto,	Stake-Net,	P. J. Mayne,	P. J. Mayne,	East Astee,	Ahavallin,
118	Ditto,	Ditto,	Ditto,	Ditto,	West Astee,	Ditto,
119	Ditto,	Ditto,	J. Pim,	W. C. Hickey,	Clooanaman,	Ditto,

1866, into the Legality or Illegality of Fixed Nets erected or used for catching Salmon in Ireland—*continued.*

No.	Barony.	County.	Judgment of Commissioners.	Date of Judgment.	Whether Judgment of Commissioners Appealed against.	Judgment of Court of Queen's Bench.
59	Clonderalaw,	Clare,	To be abated, as erected without the title required by the 5 & 6 Vic., c. 106.	4 Jan. 1864,	No appeal.	—
60	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
61	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
62	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
63	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
64	Ditto,	Ditto,	Ditto,	7 Jan. 1864,	Appeal.	Special case stated—not yet heard.
65	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	Ditto.
66	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	Ditto.
67	Ditto,	Ditto,	Ditto, and not having been legally erected in 1862,	5 Jan. 1864,	No appeal.	—
68	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
69	Ditto,	Ditto,	Ditto,	7 Jan. 1864,	Ditto.	—
70	Shelburne,	Wexford,	To be abated, as injurious to navigation, and as erected without the title required by 5 & 6 Vic., c. 106.	10 Mar. 1864,	Appeal,	Special case stated—not yet heard.
71	Ida,	Kilkenny,	Ditto,	14 Mar. 1864,	No appeal.	—
72	Shelburne,	Wexford,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	15 Mar. 1864,	Appeal,	Withdrawn.
73	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
74	Ditto,	Ditto,	Legally erected.	16 Mar. 1864,	—	—
75	Ditto,	Ditto,	To be abated, as injurious to navigation,	Ditto,	Appeal,	Withdrawn.
76	Gaultiere,	Waterford,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	17 Mar. 1864,	Ditto,	Sent back for new trial.
77	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
78	Ditto,	Ditto,	Ditto,	18 Mar. 1864,	Ditto,	Ditto.
79	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
80	Shelburne,	Wexford,	To be abated, Lord Templemore consenting,	Ditto,	No appeal.	—
81	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
82	Clonderalaw,	Clare,	Legally erected,	26 Mar. 1864.	—	—
83	Ditto,	Ditto,	To be abated; not erected in 1862,	28 Mar. 1864,	No appeal.	—
84	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106; and extending beyond low-water mark.	29 Mar. 1864,	Appeal,	Judgment reversed.
85	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Judgment affirmed.
86	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106, and as being injurious to navigation,	Ditto,	Ditto,	Ditto.
87	Ditto,	Ditto,	To be abated; not erected in 1862,	30 Mar. 1864,	Ditto,	Special case stated and heard — Judgment not yet delivered.
88	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
89	Ditto,	Ditto,	To be abated, as injurious to navigation, and as erected without the title required by 5 & 6 Vic. c. 106.	31 Mar. 1864,	Appeal	Special case stated and heard — Judgment not yet delivered.
90	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto,	Ditto.
91	Ditto,	Ditto,	To be abated; not erected in 1862,	Ditto,	Ditto,	Ditto.
92	Ditto,	Ditto,	To be abated, as injurious to navigation, and as erected without the title required by 5 & 6 Vic. c. 106.	Ditto,	Ditto,	Ditto.
93	Ditto,	Ditto,	To be abated by consent of Mr. Butler,	2 Apr. 1864,	No appeal.	—
94	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
95	Bunratty, Lr.	Ditto,	To be abated, as being injurious to navigation, and to the public right of fishing.	4 Apr. 1864,	Appeal,	Conviction quashed on form; new trial granted and held, *vide* No. 250.
96	Clonderalaw,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	No appeal.	—
97	Kenry,	Limerick,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
98	Lower Connello.	Ditto,	Ditto,	Ditto,	Ditto.	—
99	Clonderalaw,	Clare,	Ditto,	Ditto,	Ditto.	—
100	Shanid,	Limerick,	To be abated, as injurious to navigation,	5 Apr. 1864,	Ditto.	—
101	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106, and injurious to public right of fishing.	6 Apr. 1864,	Appeal,	Judgment reversed.
102	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto,	Ditto.
103	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
104	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
105	Ditto,	Ditto,	To be abated by consent; not erected in 1862,	Ditto,	No appeal.	—
106	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	7 Apr. 1864,	Ditto.	—
107	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
108	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Appeal,	Judgment reversed.
109	Ditto,	Ditto,	To be abated, not having been erected in 1862,	Ditto,	No appeal.	—
110	Ditto,	Ditto,	Legally erected,	Ditto,	Appeal,	Judgment affirmed.
111	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto,	Sent back for new trial.
112	Ditto,	Disto,	To be abated; injurious to navigation,	Ditto,	No appeal.	—
113	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
114	Ditto,	Ditto,	Ditto,	8 April, 1864,	Appeal,	Case stated—not yet heard.
115	Ditto,	Ditto,	Legally erected,	Ditto,	No appeal.	—
116	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106, and not erected in 1862.	Ditto,	Ditto.	—
117	Iraghticonnor	Kerry,	To be abated; not legally erected in 1862, and injurious to the public right of fishing.	11 April, 1864	Appeal,	Judgment affirmed.
118	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
119	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto,	Judgment reversed.

APPENDIX, No. 1.

RESULT of INQUIRIES held by the SPECIAL COMMISSIONERS for IRISH FISHERIES up to the 1st day of January,

No.	Where Fixed Net situated.	Description of Fixed Net.	Name of Person maintaining and using Fixed Net.	Name of Owner of Fixed Net, or of Land to which Net attached.	Name of Townland to which Net attached.	Parish.
120	River Shannon,	Stake-Net,	C. Sandes,	C. Sandes,	Carrig Island,	Ahavallin,
121	Ditto,	Ditto,	J. Pim,	R. Leslie,	Kilcolgan, Lower,	Kilnaughten,
122	Ditto,	Ditto,	Alicia Wren,	Lord Listowel,	Corcas and Sand Hills,	Kilconnelly,
123	Ditto,	Fly-Net,	Ditto,	Ditto,	Castlequarter,	Ditto,
124	Ditto,	Stake-Net,	Ditto,	Leslie Wren,	Kylatallen,	Ditto,
125	Ditto,	Ditto,	W. Sandes,	T. Sandes,	Carhoonakinneely,	Kilnaughten,
126	Ditto,	Ditto,	Alicia Wren,	Leslie Wren,	Carrigane,	Ahavallin,
127	Sea off Coast of County Cork,	Bag-Net,	C. Desmond,	Samuel Hodder,	Ringabella,	Tracton,
128	Ditto,	Fly-Net,	W. Atkinson,	Lord Ponsonby,	Redbarn,	Clonpriest,
129	Ditto,	Ditto,	N. T. Foley,	Murdock Green,	Summerfield,	Youghal,
130	Ditto,	Stake-Net,	J. Ronayne,	Ditto,	Ditto,	Ditto,
131	Ditto,	Fly-Net,	N. T. Foley,	D. L. Lewis,	Claycastle,	Ditto,
132	Ditto,	Bag-Net,	John Walsh,	Roger Davis,	Knockadoon,	Ditto,
133	Ditto,	Ditto,	D. Sullivan,	M. Longfield,	Ballycotton,	Kilmahon,
134	Ballycotton Bay, County Cork,	Ditto,	J. Litton,	J. Litton,	Ditto,	Ditto,
135	River Blackwater,	Stake-Net,	R. Power,	Trustees of Mrs. Osborne.	Pillpark,	Clashmore,
136	Ditto,	Ditto,	F. Kennedy and others,	Lord Stuart de Decies,	Timknock,	Ditto,
137	Ditto,	Ditto,	H. T. Dennehy,	Ditto,	Ardsallagh,	Ditto,
138	Ditto,	Ditto,	J. Ronayne,	Ditto,	Ditto,	Ditto,
139	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
140	Ditto,	Ditto,	M. B. Ronayne,	Ditto,	Ditto,	Ditto,
141	Ditto,	Ditto,	G. Crotty,	Ditto,	Coolbagh,	Ditto,
142	Ditto,	Head Weir,	G. Dalton,	Ditto,	Dromana,	Affane,
143	Ditto,	Stake-Net,	M. G. Adams,	Hon. C. W. M. Smythe,	Rincrew,	Templemichael,
144	Ditto,	Ditto,	Hon. C. W. M. Smythe,	Ditto,	Ballynatray,	Ditto,
145	Ditto,	Ditto,	E. M'Sweeney,	—	Templemichael,	Ditto,
146	Ditto,	Ditto,	S. Allen & N. T. Foley,	Samuel Allen,	D'Loughtane,	Kinsalebeg,
147	Ditto,	Ditto,	P. Sliney & J. Harley,	—	Newport, East,	Templemichael,
148	Ditto,	Ditto,	P. Doolan,	Lord Huntingdon,	Ballynaclash,	Clashmore,
149	Ditto,	Ditto,	M. Ronayne,	Ditto,	Ditto,	Ditto,
150	Ditto,	Ditto,	P. Mansfield,	J. Kiely,	Newport, East,	Kilcockan,
151	Ditto,	Ditto,	M. White & W. Murphy,	—	Strancally,	Ditto,
152	Ditto,	Ditto,	M. White,	—	Carnglass,	Ditto,
153	Ditto,	Ditto,	E. Cotter,	Lord Stuart de Decies,	Tinnascart,	Aglish,
154	Ditto,	Ditto,	E. M'Sweeney,	—	Stael,	Templemichael,
155	Ditto,	Ditto,	John Neil and W. Hennessey.	Rev. G. Gumbleton,	Scart,	Kilcockan,
156	Ditto,	Ditto,	R. Browne and Michl. M'Carthy.	C. Musgrave,	Glenassy, or Clooneen,	Aglish,
157	Ditto,	Ditto,	J. Fitzgerald,	C. O'Mahony,	Ballyphillip, East,	Kilcockan,
158	Ditto,	Ditto,	E. Healy,	J. Hargrave,	Dromore,	Aglish,
159	Ditto,	Ditto,	William Collins,	Ditto,	Ditto,	Ditto,
160	Ditto,	Ditto,	Maurice Hickey,	Ditto,	Ditto,	Ditto,
161	Ditto,	Head Weir,	C. Ussher,	C. Ussher,	Camphire,	Lismore,
162	Ditto,	Ditto,	J. Rice,	—	Killahaly, East,	Ditto,
163	Ditto,	Ditto,	Sir R. Musgrave,	Sir R. Musgrave,	Turin Demesne,	Ditto,
164	Ditto,	Ditto,	Ditto,	Ditto,	Norrisland,	Ditto,
165	Bride,	Ditto,	M. Whelan,	C. Ussher,	Camphire,	Ditto,
166	Ditto,	Ditto,	J. Magrath,	Ditto,	O'Kyle,	Ditto,
167	Ditto,	Ditto,	P. Walsh,	C. Smith,	Snugborough,	Kilwatermoy,
168	Ditto,	Ditto,	J. Connell,	Duke of Devonshire,	Bridane, Lower,	Lismore,
169	Ditto,	Ditto,	R. P. Maxwell,	R. P. Maxwell,	Killanthony,	Kilwatermoy,
170	Ditto,	Ditto,	E. Evans,	R. Oliver,	Ballynaraha,	Lismore,
171	Ditto,	Ditto,	T. Hannigan,	Duke of Devonshire,	Kilnacarriga,	Ditto,
172	Ditto,	Ditto,	J. Barry,	Ditto,	Ballinvella,	Ditto,
173	Ditto,	Ditto,	R. P. Maxwell,	R. P. Maxwell,	Sapperton, North,	Kilwatermoy,
174	Ditto,	Ditto,	J. Mangan,	Duke of Devonshire,	Ballinvella,	Lismore,
175	Ditto,	Ditto,	J. Leahy,	Ditto,	Monatrim,	Ditto,
176	Ardmore Bay,	Bag-Net,	T. Geary,	E. O'Dell,	Duffcarrick,	Ardmore,
177	Ditto,	Ditto,	Ditto,	Ditto,	Dysert,	Ditto,
178	Castlemaine Harbour,	Stake-Net,	H. W. Dodd & others,	The M'Gillycuddy,	Killenagh,	Ballinvogher,
179	Ditto,	Ditto,	F. Ashe,	Reps. Lord Ventry,	Lack,	Ditto,
180	Ditto,	Ditto,	H. W. Dodd & others,	E. Mahony,	Dooaghs,	Killorglin,
181	Ditto,	Ditto,	Ditto,	Ditto,	Illaunstook,	Ditto,
182	Ditto,	Ditto,	E. De Moleyns,	Reps. Lord Ventry,	Cromane, Lower,	Ditto,
183	Ditto,	Ditto,	Sir R. Blennerhassett,	Sir R. Blennerhassett,	Douglas,	Ditto,
184	Ballinskelligs Bay,	Bag-Net,	W. Hector,	E. Reeves,	Dungeagan,	Prior,
185	Kenmare River,	Ditto,	M. O'Sullivan,	E. B. Hartopp,	Rath,	Kilcrohane,
186	Sea off Coast of co. Louth,	Ditto,	T. A. Newcomen,	Smith Barry,	Glaspistol,	Clogher,
187	Ditto,	Ditto,	Arthur and Jane Newcomen.	Arthur Newcomen,	Callystown,	Ditto,
188	Ditto,	Ditto,	T. Kirk,	A. Godley,	Clogher,	Ditto,
189	Ditto,	Ditto,	Jane S. Newcomen,	Arthur Newcomen,	Callystown,	Ditto,
190	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
191	Ditto,	Ditto,	E. Jones,	Sir A. Bellingham,	Dunany,	Dunany,

1866, into the Legality or Illegality of Fixed Nets erected or used for catching Salmon in Ireland.

No.	Barony.	County.	Judgment of Commissioners.	Date of Judgment.	Whether Judgment of Commissioners Appealed against.	Judgment of Court of Queen's Bench.
120	Iraghticonnor	Kerry,	To be abated; not erected in 1862,	11 April, 1864	No appeal.	—
121	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
122	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
123	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
124	Ditto,	Ditto,	Ditto, and not erected in 1862,	12 April, 1864	Appeal,	Judgment reversed.
125	Ditto,	Ditto,	Ditto, ditto,	Ditto,	Ditto,	Judgment affirmed.
126	Ditto,	Ditto,	To be abated, as injurious to public rights of fishing.	Ditto,	Ditto,	Judgment reversed.
127	Kinalea,	Cork,	To be abated, as being within three miles of Carrigaline river mouth.	4 Aug. 1864	Ditto,	Special case stated—not yet heard.
128	Imokilly,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	8 Aug. 1864	No appeal.	—
129	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
130	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
131	Ditto,	Ditto,	To be abated, as injurious to navigation,	Ditto,	Ditto.	—
132	Ditto,	Ditto,	To be abated, being within three miles of mouth of Womanagh River.	Ditto,	Ditto.	—
133	Ditto,	Ditto,	Postponed,	—	—	—
134	Ditto,	Ditto,	Legally erected,	29 June, 1865	No appeal.	—
135	Decies-within-Drum.	Waterford,	To be abated, as injurious to navigation,	12 Aug. 1864	No appeal.	—
136	Ditto,	Ditto,	Ditto, by consent,	Ditto,	Ditto.	—
137	Ditto,	Ditto,	Ditto, ditto,	Ditto,	Ditto.	—
138	Ditto,	Ditto,	Ditto, ditto,	Ditto,	Ditto.	—
139	Ditto,	Ditto,	Ditto, ditto,	Ditto,	Ditto.	—
140	Ditto,	Ditto,	Ditto, ditto,	Ditto,	Ditto.	—
141	Ditto,	Ditto,	Ditto, ditto,	Ditto,	Ditto.	—
142	Decies-without-Drum.	Ditto,	Ditto,	Ditto,	Ditto.	—
143	Coshmore & Coshbride.	Ditto,	To be abated, as injurious to navigation, by consent.	13 Aug. 1864,	Ditto.	—
144	Ditto,	Ditto,	To be abated as injurious to navigation,	15 Aug. 1864,	Ditto.	—
145	Ditto,	Ditto,	Ditto,	16 Aug. 1864,	Ditto.	—
146	Decies-within-Drum.	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
147	Coshmore & Coshbride.	Ditto,	To be abated, as injurious to navigation,	Ditto,	Ditto.	—
148	Decies-within-Drum.	Ditto,	To be abated by consent of Lord Huntingdon,	Ditto,	Ditto.	—
149	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
150	Coshmore & Coshbride.	Ditto,	To be abated as injurious to navigation,	Ditto,	Ditto.	—
151	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
152	Ditto,	Ditto,	To be abated by consent,	Ditto,	Ditto.	—
153	Decies-within-Drum.	Ditto,	To be abated, as injurious to navigation,	17 Aug. 1864	Ditto.	—
154	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Appeal,	Case stated—not yet heard.
155	Ditto,	Ditto,	To be abated so far as it extends beyond low water-mark; legally erected as regards the rest.	Ditto,	Ditto,	Judgment affirmed.
156	Decies-within-Drum.	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic. c. 106.	Ditto,	No appeal.	—
157	Coshmore & Coshbride.	Ditto,	Ditto,	Ditto,	Ditto.	—
158	Decies-within-Drum.	Ditto,	Ditto,	Ditto,	Ditto.	—
159	Ditto,	Ditto,	Ditto,	Ditto,	Appeal,	Case stated—not yet heard.
160	Ditto,	Ditto,	Ditto,	Ditto,	No appeal.	—
161	Coshmore & Coshbride.	Ditto,	To be abated, not erected in 1862,	Ditto,	Ditto.	—
162	Ditto,	Ditto,	To be abated, as injurious to navigation,	Ditto,	Ditto.	—
163	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
164	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
165	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
166	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
167	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
168	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
169	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
170	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
171	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
172	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
173	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
174	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
175	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
176	Decies-within-Drum.	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
177	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
178	Corkaguiny,	Kerry,	Ditto,	22 Aug. 1864,	Ditto.	—
179	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
180	Iveragh,	Ditto,	Ditto,	Ditto,	Ditto.	—
181	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
182	Ditto,	Ditto,	Ditto,	23 Aug. 1864,	Appeal,	Appeal withdrawn.
183	Ditto,	Ditto,	To be abated; not erected in 1862,	Ditto,	No appeal.	—
184	Ditto,	Ditto,	To be abated; within 3 miles of mouth of Inny River.	Ditto,	Ditto.	—
185	Dunkerron S.	Ditto,	Legally erected,	Ditto,	Ditto.	—
186	Ferrard,	Louth,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	26 Aug. 1864,	Ditto.	—
187	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
188	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
189	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
190	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
191	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—

APPENDIX, No. 1.

RESULT of INQUIRIES held by the SPECIAL COMMISSIONERS for IRISH FISHERIES up to the 1st day of January,

No.	Where Fixed Net situated.	Description of Fixed Net.	Name of Person maintaining and using Fixed Net.	Name of Owner of Fixed Net, or of Land to which Net attached.	Name of Townland to which Net attached.	Parish.
192	Sea off Coast of co. Louth,	Bag-Net,	John Jones,	Sir A. Bellingham,	Drahanstown,	Dunany,
193	Ditto,	Ditto,	T. Kirk,	A. Godley,	Clogher,	Clogher,
194	Ditto,	Head Weir,	J. M'Keon,	Sir A. Bellingham,	Castlebellingham,	Gernonstown,
195	Sea off Coast of co. Antrim,	Bag-Net,	Charles Black,	Lord Antrim,	Portrush,	Dunluce,
196	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
197	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
198	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
199	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
200	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
201	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
202	Ditto,	Ditto,	John Reaney,	Ditto,	Torr,	Culleighirin,
203	Ditto,	Ditto,	N. D. Crommellin,	Ditto,	Ballyteerim,	Ditto,
204	Ditto,	Ditto,	A. M'Keegan,	Ditto,	Glebe,	Layd,
205	Ditto,	Ditto,	Lord Antrim,	Ditto,	Carnlough,	Ardclinis,
206	Ditto,	Ditto,	Ditto,	Ditto,	Townparks, Glenarm,	Tickmacrevan,
207	Ditto,	Ditto,	J. M'Intosh,	H. H. M'Neile,	Redbay,	Layd,
208	Ditto,	Ditto,	A. M'Keegan,	Charles Black,	Moneyvert,	Ditto,
209	Ditto,	Ditto,	Thomas Tait,	A. Boyd,	Ballycastle,	Ramoan,
210	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
211	Ditto,	Ditto,	J. M'Gildowney,	J. M'Gildowney,	Clarepark,	Ditto,
212	Ditto,	Ditto,	A. M'Quilkin,	J. K. Tenant,	Cregganboy,	Ditto,
213	Ditto,	Ditto,	S. Woodside,	Ditto,	Ditto,	Ditto,
214	Ditto,	Ditto,	H. Dickson,	G. E. Fullerton,	Carrick-a-rede Island,	Ballintoy,
215	Ditto,	Ditto,	H. Kelly,	Ditto,	Larrybane,	Ditto,
216	Ditto,	Ditto,	R. Stewart,	Sir E. M'Naghten,	Portbradden,	Ditto,
217	Ditto,	Ditto,	Ditto,	J. E. Leslie,	Templastragh,	Ditto,
218	Ditto,	Ditto,	J. M'Alister,	E. M'Neile,	Carrysherkin,	Ditto,
219	Ditto,	Ditto,	F. Mills,	J. C. Anderson,	Portmoon - Feigh Mountain.	Dunseverick,
220	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
221	Ditto,	Ditto,	W. Gregg,	Sir E. M'Naghten,	Ardihannon,	Billy,
222	Ditto,	Ditto,	Ditto,	Ditto,	Bushfoot,	Dunluce,
223	Sea off Coast of co. Londonderry,	Ditto,	H. O'Neill,	A. Shuldham and Hon. Mrs. Campbell.	East Ballygeelagh,	Ballyaghran,
224	Ditto,	Ditto,	J. M'Keenan,	Sir H. H. Bruce,	Freehall,	Dunbogh,
225	Sea off Coast of co. Donegal,	Ditto,	C. M'Kinney,	Rev. S. Montgomery,	Glenagiveney,	Lower Moville,
226	Ditto,	Ditto,	Ditto,	J. S. Nicholson,	Mossy Glen,	Ditto,
227	Ditto,	Ditto,	Ditto,	Anne Kean,	Ballynagaragh,	Ditto,
228	Ditto,	Ditto,	Ditto,	E. M'Clelland,	Ballycharry,	Ditto,
229	Ditto,	Ditto,	B. Sheffry,	J. S. Nicholson,	Tirmacronagh,	Culdaff,
230	Ditto,	Ditto,	A. Maddison,	R. C. Stewart,	Horn Head,	Clondahorky,
231	Sea off Coast of co. Londonderry,	Ditto,	R. Stewart,	Sir H. H. Bruce,	Ballymaclary,	Magilligan,
232	Ditto,	Ditto,	Ditto,	Ditto,	Doaghs,	Ditto,
233	Lough Foyle,	Stake-Net,	R. Allen,	Irish Society,	Gransha,	Glendermott,
234	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
235	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
236	Ditto,	Ditto,	Ditto,	Ditto,	Ballynashalloge,	Templemore,
237	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
238	Ditto,	Ditto,	Ditto,	Ditto,	Culmore,	Ditto,
239	Ditto,	Ditto,	Ditto,	Ditto,	Culmore Level,	Ditto,
240	Ditto,	Ditto,	Ditto,	Ditto,	Lower Campsey,	Faughanvale,
241	Ditto,	Ditto,	Ditto,	Ditto,	Coolkeeragh,	Glendermott,
242	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
243	Ditto,	Ditto,	Ditto,	Ditto,	Culmore,	Culmore,
244	River Erne,	Ditto,	Alicia Sheil,	Thomas Connolly,	Fenner,	Innismacsaint,
245	Sea off Coast of co. Sligo,	Bag-Net,	William Petrie,	Ormsby Jones,	Streedagh,	Ahamlish,
246	Ditto,	Ditto,	William Little,	R. Orme,	Carrowhubback,	Kilglass,
247	Sea off Coast of co. Mayo,	Ditto,	M. Flynn,	Colonel Knox,	Castletown or Lackan,	Lackan,
248	Ditto,	Ditto,	William Little,	Rev. J. M'Naughten,	Ballinlena,	Kilcummin,
249	Ditto,	Ditto,	Ditto,	Rev. C. L. Thomas,	Ballygarry,	Ditto,
250	Shannon River,	Stake-Net,	H. S. O'Brien,	H. S. O'Brien,	Portdrine,	Kilfintinan,
251	Bantry Bay, Glengariffe Har.,	Bag Net,	Lord Bantry,	Lord Bantry,	Moonteensudder,	Kilcaskin,
252	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
253	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
254	Bantry Bay, Adrigole Harbour,	Ditto,	Ditto,	Ditto,	Adrigole,	Ditto,
255	Sea off co. Mayo,	Ditto,	Alexander Hector,	William Pike,	Achillbeg,	Achill,
256	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
257	Sea off Achill Island,	Ditto,	Ditto,	M. M. Blacker,	Keem Net,	Ditto,
258	Ditto,	Ditto,	Ditto,	C. Baycott,	Gupresheen,	Ditto,
259	Ditto,	Ditto,	Ditto,	Ditto,	West Net,	Ditto,
260	Ditto,	Ditto,	Ditto,	Trustees Achill Mission,	Keel,	Ditto,

NOTE.—In addition to the foregoing there were 22 other cases called on, but it was shown that they comprised weirs, commonly called Sprat weirs, which were not used for the capture of salmon, and were therefore not within the jurisdiction of the Commissioners, ... 5

And Bag-Nets ordered to be removed as being within estuaries of rivers, ... 17

Total number of Trials, ... 282

1866, into the Legality or Illegality of Fixed Nets erected or used for catching Salmon in Ireland.

No.	Barony.	County.	Judgment of Commissioners.	Date of Judgment.	Whether Judgment of Commissioners Appealed against.	Judgment of Court of Queen's Bench.
192	Ferrard,	Louth,	Legally erected,	26 Aug. 1864,	No appeal.	—
193	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	27 Aug. 1864,	Ditto.	—
194	Ditto,	Ditto,	Legally erected,	Ditto,	Ditto.	—
195	Lr. Dunluce,	Antrim,	Ditto,	29 Aug. 1864,	Ditto.	—
196	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
197	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
198	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
199	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
200	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
201	Ditto,	Ditto,	To be abated; injurious to navigation,	Ditto,	Ditto.	—
202	Carey,	Ditto,	Legally erected,	30 Aug. 1864,	Ditto.	—
203	Ditto,	Ditto,	To be abated within 3 miles of mouth of Cushendun River.	Ditto,	Ditto.	—
204	Lr. Glenarm,	Ditto,	Ditto, ditto,	Ditto,	Ditto.	— [heard.
205	Ditto,	Ditto,	Ditto, ditto, Glenarm River,	Ditto,	Appeal,	Case stated—not yet
206	Ditto,	Ditto,	Ditto, in Estuary of Glenarm River, as defined.	Ditto,	Ditto,	Ditto.
207	Ditto,	Ditto,	Ditto, within 3 miles of mouths of Cushendall and Glenarriffe Rivers, as defined.	Ditto,	No appeal.	—
208	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
209	Carey,	Ditto,	Ditto, within 3 miles of Ballycastle River,	Ditto,	Ditto.	—
210	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
211	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
212	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
213	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
214	Ditto,	Ditto,	Legally erected,	Ditto,	Ditto.	—
215	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
216	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
217	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
218	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
219	Ditto,	Ditto,	Legally erected,	Ditto,	Ditto.	—
220	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
221	Ditto,	Ditto,	To be abated within Estuary of Bush River as defined.	Ditto,	Appeal,	Case stated—not yet heard.
222	Lr. Dunluce,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
223	Coleraine,	Londonderry,	Legally erected,	31 Aug. 1864,	No appeal.	—
224	Ditto,	Ditto,	To be abated; within three miles of mouth of Bann River.	Ditto,	Ditto.	—
225	Innishowen,	Donegal,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	3 Sept. 1864,	Ditto.	—
226	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
227	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
228	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
229	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
230	Kilmacrenan,	Ditto,	Ditto,	Ditto,	Ditto.	—
231	Keenaght,	Londonderry,	Ditto,	5 Sept. 1864,	Appeal,	Sent back for new trial.
232	Ditto,	Ditto,	To be abated; within Estuary of Foyle River,	Ditto,	No appeal.	—
233	Tirkeeran,	Ditto,	Legally erected,	—	Ditto.	—
234	Ditto,	Ditto,	Ditto,	—	Ditto.	—
235	Ditto,	Ditto,	Ditto,	—	Ditto.	—
236	City & Liberties,	Ditto,	To be abated, injurious to navigation,	—	Ditto.	—
237	Ditto,	Ditto,	Ditto,	—	Ditto.	—
238	Ditto,	Ditto,	Ditto,	—	Ditto.	—
239	Ditto,	Ditto,	Ditto,	—	Ditto.	—
240	Tirkeeran,	Ditto,	Ditto,	—	Ditto.	—
241	Ditto,	Ditto,	Ditto,	—	Ditto.	—
242	Ditto,	Ditto,	Ditto,	—	Ditto.	—
243	Ditto,	Ditto,	Ditto,	—	Ditto.	—
244	Tyrhugh,	Donegal,	Legally erected,	8 Sept. 1864,	Ditto.	—
245	Carbury,	Sligo,	Postponed,	—	—	—
246	Tireragh,	Sligo,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	10 Sept. 1864,	Appeal,	Case stated—not yet heard.
247	Tyrawley,	Mayo,	Ditto,	12 Sept. 1864,	No appeal.	—
248	Ditto,	Ditto,	Ditto,	Ditto,	Appeal,	Case stated—not yet heard.
249	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.
250	Lr. Bunratty	Clare,	To be abated, as injurious to navigation and public rights of fishing, and as erected on the site of a weir previously condemned. *Vide* sec. 17 of 13 & 14 Vic., c. 88.	17 Sept. 1864,	Ditto,	Judgment affirmed.
251	Bere,	Cork,	Postponed on application from Lord Bantry,	30 June, 1865.	—	—
252	Ditto,	Ditto,	Ditto,	Ditto,	—	—
253	Ditto,	Ditto,	Ditto,	Ditto,	—	—
254	Ditto,	Ditto,	Abandoned; no title,	Ditto.	—	—
255	Burrishoole,	Mayo,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	12 July, 1865,	No appeal.	—
256	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
257	Ditto,	Ditto,	Postponed,	Ditto,	Ditto.	—
258	Ditto,	Ditto,	To be abated, as erected without the title required by 5 & 6 Vic., c. 106.	Ditto,	Ditto.	—
259	Ditto,	Ditto,	Ditto,	Ditto,	Ditto.	—
260	Ditto,	Ditto,	Legally erected,	Ditto,	Ditto.	—

APPENDIX No. 2.

RESULT of INQUIRIES held by the SPECIAL COMMISSIONERS for IRISH FISHERIES up to the 1st day of January, 1866, into the Legality or Illegality of FISHING WEIRS used for catching Salmon in Ireland.

No.	Where Fishing Weir situated.	In what River situated.	Name of Owner of Fishing Weir.	County.	Judgment of Commissioners.	Date of Judgment.	Whether Judgment of Commissioners appealed against.	Judgment of Court of Queen's Bench.
						1865.		
1	Lax Weir,	Shannon,	William Malcolmson & Joseph Robinson.	Limerick and Clare,	Legal,	31st March,	Appeal,	Special case—not yet taken up by appellant.
2	Woodhouse,	Tay,	R. Beresford,	Waterford,	Title good; but gap to be opened not less than 6 feet wide,	4th April,	No appeal.	—
3	Coolnamuck,	Suir,	Marquis of Waterford,	Ditto,	So much of the weir as lies in Co. Waterford legal—the rest illegal,	4th April,	Ditto.	—
4	Innistiogue,	Nore,	W. F. Tighe,	Kilkenny,	Title good; but spur wall illegal, and to be removed. Gap 60 feet,	6th April,	Ditto.	—
5	Rockview,	Nore,	H. Greene,	Ditto,	Ditto, ditto, Gap 78 feet,	7th April,	Ditto.	—
6	Dysart,	Nore,	Maurice Carroll,	Ditto,	Title good; but Queen's share to be cleared out. Gap 47 feet,	7th April,	Ditto.	—
7	Jerpoint,	Nore,	P. H. Hunt,	Ditto,	Title good; but Queen's share to be cleared out and spur wall removed. Gap 66 feet.	7th April,	Ditto.	—
8	Oldbridge,	Boyne,	H. B. Coddington,	Louth and Meath,	Title good; but Queen's share to be opened in centre of Weir, of 24 feet.	19th April,	Ditto.	—
9	Rosnaree,	Boyne,	C. W. Osborne,	Meath,	Title good; but Queen's share to be opened, of 30 feet,	19th April,	Ditto.	—
10	New Grange,	Boyne,	G. W. Maunsell,	Ditto,	Postponed,	—	Ditto.	—
11	Lismore,	Blackwater,	Duke of Devonshire,	Waterford,	Title good; but Queen's share to be opened 31½ feet,	27th June,	Ditto.	—
12	Weir above Wellington Bridge,	Lee,	Ditto,	Cork,	Title good. A Fishing Mill-dam,	29th June,	Ditto.	—
13	Upper Gill Abbey,	Lee,	D. Hall,	Ditto,	Ditto, ditto,	29th June,	Ditto.	—
14	Hayes's Weir,	Lee,	W. Lane,	Ditto,	Ditto, ditto,	29th June,	Ditto.	—
15	Sugar-house Weir,	Lee,	W. L. Perrier,	Ditto,	No judgment, as Weir dry,	30th June,	Ditto.	—
16	Waterville,	Currane,	James Butler,	Kerry,	Legal. Additional weekly close season in lieu of opening Queen's gap.	3rd July,	Ditto.	—
17	Carrah,	Carrah,	M. J. Foley and others,	Ditto,	Title good; but gap to be opened 16 feet,	3rd July,	Ditto.	—
18	Galway,	Corrib,	T. Ashworth,	Galway,	Legal. Gap 20 feet 7 inches,	10th July,	Ditto.	—
19	Furboe,	Furboe,	A. W. Blake,	Ditto,	Title good; but gap to be opened of 3 feet,	10th July,	Ditto.	—
20	Spiddal,	Spiddal,	M. Morris,	Ditto,	Title good; but gap to be opened of 12 feet,	10th July,	Ditto.	—
21	Ballinahinch,	Ballinahinch,	Law Life Assurance Company,	Ditto,	Title good; but gap to be opened,	10th July,	Ditto.	—
22	Ballina,	Moy,	Mary Anne Little and Andrew Clarke.	Mayo and Sligo,	Legal. Gap, 34 feet 2 inches,	12th July,	Ditto.	—
23	Foxford,	Moy,	Lord Clanmorris,	Mayo,	Title good; but gap to be opened of 29 feet 7 inches,	12th July,	Ditto.	—
24	Ashleagh,	Ass or Erriff,	Hon. D. Plunket,	Ditto,	Weir abandoned,	12th July,	Ditto.	—
25	Bundorragha,	Bundorragha,	W. Houstoun,	Ditto,	Ditto,	12th July,	Ditto.	—
26	Burrishoole South Weir,	Burrishoole,	Lord Sligo and Capt. Wyndham,	Ditto,	Ditto,	12th July,	Ditto.	—
27	Ditto, North Weir,	Burrishoole,	Ditto, ditto,	Ditto,	Weir illegal. Right of way to be arranged with County Surveyor,	12th July,	Ditto.	—
28	Munhim,	Munhim,	John Walshe,	Ditto,	Title good. Gap to be opened before 1st November or Weir to be prostrated.	12th July,	Ditto.	—
29	Goulamore,	Owenmore,	Ditto,	Ditto,	Ditto, ditto,	12th July,	Ditto.	—

APPENDIX, No. 3.

LIST of RIVERS, the MOUTHS of which have been defined by the SPECIAL COMMISSIONERS, one hundred and twelve in number.

Section 22 of 5 & 6 Vic., c. 106, enacts "That where the breadth of the mouth or entrance into the sea of any river, the inland "portion of which is frequented by Salmon, is less than half a mile, statute measure, at low water of spring tides, it shall "not be lawful for any person whatsoever (save and except the proprietor of a several fishery within the limits thereof) to "place or erect any stake weir or fixed net within one statute mile, seaward, coastwards, or inwards, from or on either "side of the mouth or entrance of any such river into the sea."

Section 44 of 13 & 14 Vic., c. 88, enacts "That it shall not be lawful for any person, save and except the owner of a several "fishery within the limits thereof, at any time to shoot, draw, or use any net for taking Salmon at the mouth of any river, "where the breadth of such mouth between the banks thereof shall not exceed a quarter of a mile statute measure; and "that it shall not be lawful for any person, save such owner as aforesaid, within such limits as aforesaid, to shoot, draw, "or use any net for taking Salmon within half a mile seaward, or half a mile inwards, or along the coast from the mouth "of any river."

Section 3 of 26 & 27 Vic., c. 114, enacts "That no bag net shall be placed or allowed to continue in any river, or the estuary "of any river, as such river or estuary has been defined by the Commissioners of Fisheries, or shall be defined by the "Commissioners under this Act, or within a distance of less than three statute miles from the mouth of any river, as "defined."

District.	Name of River.	District.	Name of River.
Dublin,	Liffey.	Ballinakill,	Dawros.
	Dodder.		Derrychorraun.
	Bray.		Ballinaboy.
Wexford,	Slaney.	Bangor,	Glenamoy.
	Owenavarragh or Courtown.		Owenmore.
	Inch.		Owenduff.
Waterford,	Suir, Nore, and Barrow.		Owengarve.
	Bannow.		Burrishoole.
Lismore,	Blackwater.		Newport.
	Womanagh.		Owenwee or Belclare.
Cork,	Tramore or Douglas.		Bunowen or Louisburgh.
	Lee.	Ballina,	Easky.
	Owenacurra or Middleton.		Moy.
	Owenbeg or Carrigaline.		Cloonaghmore or Palmerstown.
	Argideen.		Ballingten or Ballycastle.
	Bandon.	Sligo,	Drumcliff.
Skibbereen,	Roury.		Sligo.
	Ilen.		Ballisodare.
	Leamawaddra.		Dunmoran.
Bantry,	Glengariffe.	Ballyshannon,	Glen or Teelin.
	Coomhola or Snave.		Ballyhadoo or Kilcar.
	Ouvane or Ballylickey.		Eany-water or Inver.
	Mealagh or Dunnemark.		Eske.
Kenmare,	Roughty.		Erne.
	Sheen.		Drowes or Bundrowes.
	Finnehy.		Duff or Bunduff.
	Blackwater.	Letterkenny,	Crann or Buncrana.
	Cloonee.		Mill.
	Owenshagh.		Leanan or Rathmelton
	Crowanshagh.		Swilly.
	Sneem.		Owenmarve.
Killarney,	Currane.		Gweebarra.
	Inny.		Owenea.
	Carragh.		Owentocker.
	Laune.		Bracky.
	Maine.		Lackagh.
	Ferta or Valencia.		Ray.
	Rosbehy.		Tullaghobegly.
Limerick,	Shannon.		Glenna.
	Cashen.		Clady.
	Deel or Askeaton.		Gweedore.
	Fergus.	Londonderry,	Foyle.
	Maigue.		Roe.
	Bunratty.		Culdaff.
Galway,	Corrib.	Coleraine,	Bann.
	Furbogh.	Ballycastle,	Glenarm.
	Spiddle.		Glenariffe (Red Bay).
	Screeb.		Dall or Cushendall.
	Ballinahinch.		Glendun or Cushendun
	Cashla.		Margy or Ballycastle.
	Invermore.		Bush or Bushmills.
	Owengowla.	Drogheda,	Boyne.
Ballinakill,	Carrownisky.		Glyde and Dee, or Annagassen.
	Bundorragha.		Fane.
	Erriff.		Castletown or Dundalk.
	Culfin.		Piedmont.

In addition to the foregoing, the mouth of the following river has been heretofore defined by the Commissioners of Public Works and the Inspecting Commissioners of Fisheries; and until such definition is altered by the Special Commissioners, it remains in full force.

Name of River.	Where Mouth Defined.
Adrigole,	By a straight line drawn from the southern side of the church in Townland of Adrigole, to southern side of chapel in Townland of Drumgarvan.

APPENDIX, No. 4.—TABLE showing the CLOSE SEASONS for SALMON and TROUT in the different Districts in Ireland, as fixed by Statute Law, or the Order of the Commissioners, 1st January, 1866; compiled from the Schedule of Close Seasons, published by the Commissioners of Public Works and Fisheries, and the 21st sec. of 26 & 27 Vic., c. 114, which requires there shall not be fewer than 168 days Close Season in each Fishery.

No. and Name of District.	Boundary of District.	Tidal.	Fresh Water.	Angling with Cross Lines.	Angling with Single Rod and Line.	Date of last change.
1. Dublin, . .	Skerries to Wicklow.	From Howth to Dalkey Island, between 31st July and 16th January. For remainder of District, between the 31st Aug. and 16th Feb.	In all Rivers flowing into the Sea between Howth and Dalkey Island, between 31st July and 1st Feb. For remainder of Dist. between 31st Aug. & 1st Mar.	15th October and 2nd April.	1st November to 1st February.	10th Dec. 1861.
2. Wexford, . .	Wicklow to Bagenbon Head.	Between Cahore Point and Kiln Bay, between 15th Sept. and 1st April; but fixed nets between 31st Aug. and 1st April, and for remainder of District, Between 28th September and 16th March, (but *fixed* Nets between 15th September and 3rd March.)	Between Kiln Bay and Cahore Point, between 15th September and 1st April. And for remainder of District, between 28th September and 16th March.	28th September and 16th March.		
3. Waterford, .	Bagenbon to Helvick Head.	„ 15th September and 3rd March; but for Electoral Division A, between 31st August and 16th February,	„ 15th September and 3rd March.	28th September and 1st April.		28th Feb. 1862.
4. Lismore, . .	Helvick Head to Ballycotton.	„ 15th September and 3rd March.	„ 15th September and 3rd March.	28th September and 16th March.		6th Dec. 1860.
5. Cork, . .	Ballycotton to Galley Head.	„ 15th Sept. and 3rd March, for Electoral Division A (between Ballycotton and Barry's Head, East of Oyster Haven).	Between 15th Sept. and 1st April, for Electoral Division C.	9th October and 27th March.		30th Dec. 1858.
		„ 31st August and 1st March, for Electoral Division B (between Barry's Head, East of Oyster Haven, and Galley Head).	Between 31st August and 1st April, for Electoral Division D.	9th October and 27th March.		22nd June, 1859.
6¹. Skibbereen, .	Galley Head to Mizen Head.	„ 15th September and 1st April.	Between 15th September and 1st April.	15th October and 2nd April.		22nd June, 1859.
6². Bantry, .	Mizen Head to Crow Head.	„ Do. do.	„ Do. do.	15th October and 2nd April.		7th Feb. 1856.
6³. Kenmare, .	Crow Head to Lamb Head.	„ Do. do.	„ Do. do.	Do. do.		„
7. Killarney, .	Lamb Head to Dunmore Head, including the Blaskets.	„ 31st July and 16th January, save Rivers Maine and Inny, and Tributaries.	Between 31st July and 18th January, save Rivers Maine and Tributaries, and Inny, and save also Currane Lake, down to old bridge at Waterville.	15th September and 3rd March.		„
		For River Maine, to its mouth, and Tributaries, and River Inny, above Ferry House, between 15th September and 1st May.	For River Maine and its Tributaries, and River Inny, above Ferry House, between 15th September and 1st May.	28th September and 1st May.		16th Sept. 1862.
			Currane Lake and Tributaries, down to old bridge at Waterville, 31st July and 1st April.	15th September and 1st April.		
8. Limerick, . .	Dunmore to Hags Head.	Between 20th July and 12th February; but fixed engines between 6th July and 12th February; but between Kerry Head and Dunmore Head, 15th September and 1st April, save Rivers Cashen, Feale, and Geale, and their Tributaries.	Between 20th July and 12th February; but for Electoral Divisions C and D, 12th August and 1st May; and Rivers between Kerry Head and Dunmore Head, 15th Sept. and 1st April, save Rivers Cashen, Feale, and Geale, and their Tributaries.	See below for Limerick.*		
		For Rivers Cashen, Feale and Geale and their Tributaries, between 12th August and 1st May.	For Rivers Feale, Geale, and Cashen, 12th August and 1st May.†	Limerick, see below.*		27th Mar. 1862.
9. Galway, . .	Hags Head to Slyne Head.	Between 31st August and 16th February.	Between 31st August and 1st March.	28th September and 16th March.		
10¹. Ballinakill, .	Slyne Head to Emlagh Point.	„ Do. do.	„ Do. do.	Do. do.		14th July, 1849.
10². Bangor, . .	Emlagh Point to Benwee Head.	„ Do. do.	„ Do. do.	Do. do.		14th July, 1849.
11. Ballina, . .	Benwee to Coonamore.	„ 19th August and 4th February.	„ 19th August and 4th February.	19th August and 4th February for Salmon; 28th September and 16th March for Trout.		
12. Sligo, . .	Coonamore to Mullaghmore.	„ Do. do.	„ Do. do.	28th September and 16th March; and for Drumcliffe River and Glencar Lake, 15th October and 2nd April.		2nd Sept. 1857.
				Between 19th Aug. and 3rd March for Salmon; but between 28th Sept. and 16th March for Trout; and for River Inver, between 28th Sept. and 16th March; and all rivers running into the sea between Rossan Point and Muckross Point, between 28th Sept. and 16th March; and for River Bundrowes and Lough Melvin, between 15th Sept. and 3rd March.		23rd Aug. 1861.
13. Ballyshannon, .	Mullaghmore to Rossan.	„ Do. do.	„ Do. do.	28th September and 16th March.		27th Aug. 1858.
				28th September and 15th April.		17th Apr., 1860.
14. Letterkenny, .	Rossan to Malin Head.	„ 19th August and 4th Feb., and one mile above Tideway,	„ 19th August and 1st March.	28th September and 16th March.		24th Nov. 1860.
15¹. Londonderry, .	Malin to Downhill Boundary.	„ 31st August and 15th April.	„ 31st August and 15th April.	28th September and 15th April.		2nd Sept. 1857.
15². Coleraine, .	Downhill Boundary to Portrush.	„ 19th August and 4th February.	„ 19th August and 1st March.	28th September and 16th March.‡		27th Jan. 1862.
16. Ballycastle, .	Portrush to Donaghadee.	„ Do. do.	„ Do. do.	28th September and 16th March.		15th Dec. 1856.
17. Drogheda, .	Donaghadee to Skerries.	„ 19th August and 12th February, from Skerries to Cranfield Point; but between 28th September and 16th March, from Cranfield Point to Donaghadee.	Between 19th August and 12th Feb. from Skerries to Cranfield Point; between 28th Sept. and 16th March, from Cranfield Point to Donaghadee.	28th September and 16th March.		15th Dec. 1856.

* All rivers flowing into the sea between Kerry Head and Hags Head, save Feale, Geale, and Cashen, 15th Sept. and 3rd March; Feale, Geale, and Cashen, and tributaries, 15th Oct. and 1st May; and all rivers between Kerry Head and Dunmore Head, 15th Oct. to 2nd April.

† Close Season for Fixed Engines for the capture of Eels, between the 10th January and 1st July, save in the River Shannon, which is between the 21st January and 1st July.

‡ Pollen Fishing by Trammel Nets in Lough Neagh, 29th September and 1st March.

NOTE.—By the 35th section of the 5th & 6th Vic., c. 106, the Close Season for any District cannot be changed until after the expiration of three years from the commencement of last change.

NOTE.—The 21st section of the 26th & 27th Vic., c. 114, requires there shall not be fewer than 168 days Close Season in each Fishery; and section 23 of same Act fixes the Open Season for angling with Single Rod and Line from 1st February to 1st November.

WEEKLY CLOSE SEASON.—By the 20th section of the 26th & 27th Vic., c. 114, no Salmon or Trout shall be fished for or taken in any way, except by Single Rod and Line, between

District.	Single Rods.	Cross Lines.	Snap Nets.	Draft Nets.	Drift Nets	Trammel Nets, or Draft Nets for Pollen.	Pole Nets.	Bag Nets.	Fly Nets.	Stake Nets.	Head Weirs.	Box, Crib, &c.	Gap, Eye, &c.	Sweepers.	Coghills.	Loop Nets.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Dublin, .	159 10 0	2 0 0	–	69 0 0	–	–	–	–	–	–	–	–	–	–	–	–
Wexford, .	46 10 0	–	–	114 0 0	–	0 15 0	–	–	–	–	–	–	–	–	–	–
Waterford, .	134 0 0	40 0 0	561 0 0	90 0 0	279 0 0	–	–	–	–	–	6 0 0	40 0 0	11 6 8	–	–	–
Lismore, .	172 10 0	86 0 0	63 0 0	57 0 0	–	4 10 0	–	–	–	30 0 0	–	–	–	–	–	–
Cork, . .	227 10 0	14 0 0	–	156 0 0	6 0 0	–	–	–	–	–	–	–	–	–	–	–
Skibbereen, .	14 10 0	–	–	18 0 0	–	–	–	–	–	–	–	–	–	–	–	–
Bantry, .	6 0 0	–	–	15 0 0	7 10 0	–	–	5 0 0	–	–	–	–	–	–	–	–
Kenmare, .	21 10 0	–	–	13 10 0	–	–	–	20 0 0	–	–	–	–	2 0 0	12 0 0	–	–
Killarney, .	68 10 0	16 0 0	1 0 0	219 0 0	–	–	–	–	–	–	–	20 0 0	–	–	–	–
Limerick, .	218 10 0	86 0 0	48 0 0	402 0 0	105 0 0	31 10 0	26 0 0	–	–	120 0 0	6 0 0	90 0 0	180 0 0	–	–	–
Galway, .	116 0 0	16 0 0	–	33 0 0	–	4 10 0	–	–	–	–	–	40 0 0	14 0 0	–	–	–
Ballynakill, .	53 0 0	–	–	42 0 0	–	–	4 0 0	–	–	–	–	–	–	–	–	–
Bangor, .	28 0 0	–	–	69 0 0	–	–	–	–	–	–	–	–	–	–	–	–
Ballina, .	58 0 0	–	–	36 0 0	12 0 0	–	–	–	–	–	–	70 0 0	7 0 0	–	–	–
Sligo, . .	27 10 0	–	–	66 0 0	–	–	–	–	–	–	–	–	3 0 0	–	–	–
Ballyshannon,	75 0 0	16 0 0	–	93 0 0	–	–	4 0 0	–	–	30 0 0	–	30 0 0	–	–	28 0 0	–
Letterkenny, .	33 15 0	–	–	33 0 0	–	–	–	–	–	–	–	25 0 0	–	–	–	9 0 0
Londonderry,	54 0 0	12 0 0	–	102 0 0	–	–	6 0 0	–	–	90 0 0	–	–	–	–	–	–
Coleraine, .	74 0 0	2 0 0	1 10 0	336 0 0	–	34 0 0	–	20 0 0	–	–	–	40 0 0	40 0 0	–	31 0 0	–
Ballycastle, .	21 0 0	–	–	36 0 0	–	–	–	130 0 0	–	–	–	–	–	–	–	–
Drogheda, .	63 10 0	11 0 0	4 10 0	112 10 0	–	–	–	10 0 0	–	–	6 0 0	40 0 0	42 10 0	–	–	–
Total, .	1,672 15 0	301 0 0	679 0 0	2,112 0 0	409 10 0	75 5 0	40 0 0	185 0 0	–	270 0 0	18 0 0	395 0 0	299 16 8	12 0 0	59 0 0	9 0 0

APPENDIX. Nos. 6 & 7.

APPENDIX,

SCHEDULE of LICENCE DUTIES payable in each District

DISTRICT.	1. Salmon Rods.	2. Cross Lines.	3. Snap Nets.	4. Draft Nets.	5. Drift Nets.	6. Trammel Nets or Draft Nets for Pollen.	7. Pole Nets.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1. Dublin,	0 10 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
2. Wexford,	0 10 0	1 0 0	0 15 0	2 0 0	1 10 0	0 15 0	1 0 0
3. Waterford,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
4. Lismore,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
5. Cork,	0 10 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
6[1]. Skibbereen,	0 10 0	1 0 0	0 15 0	1 10 0	1 10 0	0 15 0	1 0 0
6[2]. Bantry,	1 0 0	1 0 0	0 15 0	3 0 0	1 10 0	0 15 0	1 0 0
6[3]. Kenmare,	0 10 0	1 0 0	0 15 0	1 10 0	1 10 0	0 15 0	1 0 0
7. Killarney,	0 10 0	2 0 0	1 0 0	3 0 0	3 0 0	0 15 0	1 0 0
8. Limerick,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
9. Galway,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
10[1]. Ballynakill,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
10[2]. Bangor,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
11. Ballina,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
12. Sligo,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
13. Ballyshannon,	1 0 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
14. Letterkenny,	0 10 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
15[1]. Londonderry,	0 10 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
15[2]. Coleraine,	1 0 0	2 0 0	0 15 0	3 0 0	1 10 0	0 10 0	2 0 0
16. Ballycastle,	0 10 0	2 0 0	1 10 0	3 0 0	3 0 0	1 10 0	2 0 0
17. Drogheda,	0 10 0	1 0 0	0 15 0	1 10 0	1 10 0	0 15 0	1 0 0

APPENDIX,

SCHEDULE of LICENCE DUTIES received by the BOARDS of

DISTRICT.	Number and Description of Licences sold in 1864.																1864. Amount of Licence Duty.	1864. Percentage on Poor Law Valuation.	1864. Total Amount received for Licence Duties.	1864. Average No. employed.
	1. Salmon Rods.	2. Cross Lines.	3. Snap Nets.	4. Draft Nets.	5. Drift Nets.	6. Trammel Nets, or Draft Nets for Pollen.	7. Pole Nets.	8. Bag Nets.	9. Fly Nets.	10. Stake Nets.	11. Head Weirs.	12. Box, Crib, &c.	13. Gap, Eye, &c.	14. Sweepers.	15. Cogbills.	16. Loop Nets.				
																	£ s. d.	£ s. d.	£ s. d.	
1. Dublin,	223	–	–	15	–	–	–	2	–	–	–	–	–	–	–	–	176 10 0	—	176 10 0	321
2. Wexford,	102	–	–	56	–	1	–	–	–	–	–	–	1	–	–	–	136 5 0	—	136 5 0	442
3. Waterford,	310	36	317	21	90	–	–	1	–	1	2	4	20	–	–	–	847 6 8	—	847 6 8	2,278
4. Lismore,	235	37	18	4	–	–	–	2	1	15	11	–	–	–	–	–	796 10 0	40 0 0	836 10 0	488
5. Cork,	453	6	–	53	–	–	–	1	–	–	–	–	–	–	–	–	407 10 0	—	407 10 0	787
6[1]. Skibbereen,	50	–	–	11	–	–	–	–	–	–	–	–	–	–	–	–	41 10 0	—	41 10 0	116
6[2]. Bantry,	8	–	–	5	6	–	–	–	–	–	–	–	–	–	–	–	29 10 0	—	29 10 0	68
6[3]. Kenmare,	53	–	–	8	–	–	–	1	–	–	–	–	–	6	–	–	66 10 0	—	66 10 0	141
7. Killarney,	172	8	1	62	–	–	–	1	–	2	–	4	–	–	–	–	395 0 0	—	395 0 0	578
8. Limerick,	442	59	30	131	10	–	36	4	–	8	–	12	188	–	–	–	1,153 13 4	—	1,153 13 4	2,052
9. Galway,	121	11	–	10	–	4	–	–	–	–	–	5	20	–	–	–	169 0 0	40 10 0	209 10 0	253
10[1]. Ballynakill,	62	–	–	12	–	–	2	–	–	–	–	–	–	–	–	–	71 0 0	—	71 0 0	149
10[2]. Bangor,	30	–	–	22	–	–	–	–	–	–	–	1	–	–	–	–	104 0 0	—	104 0 0	163
11. Ballina,	80	–	–	11	3	–	–	7	–	–	–	11	7	–	–	–	309 0 0	—	309 0 0	207
12. Sligo,	54	1	–	16	–	–	–	–	–	–	–	–	9	–	–	–	86 0 0	—	86 0 0	170
13. Ballyshannon,	66	9	–	24	–	–	3	–	–	1	–	6	–	–	27	–	279 0 0	80 0 0	359 0 0	270
14. Letterkenny,	48	–	–	10	–	–	–	–	–	–	–	5	–	–	–	3	94 0 0	—	94 0 0	113
15[1]. Londonderry,	52	16	–	19	–	–	3	9	–	11	–	–	–	–	–	–	541 0 0	—	541 0 0	287
15[2]. Coleraine,	28	1	–	82	–	70	–	3	–	–	–	5	78	–	40	–	509 0 0	—	509 0 0	872
16. Ballycastle,	73	–	–	–	–	3	–	25	–	–	–	3	–	–	–	–	311 0 0	—	311 0 0	131
17. Drogheda,	110	10	4	62	–	–	–	7	–	–	1	4	82	–	–	–	318 0 0	—	318 0 0	713
Total,	2772	194	370	634	109	78	44	63	1	38	14	60	405	6	67	3	6,841 5 0	160 10 0	7,001 15 0	10,649

The estimate * of the average number of

Salmon Rods,	1 man.	Draft Nets,	6 men.
Cross Lines,	2 men.	Drift Nets,	5 do.
Snap Nets,	4 do.	Trammel Nets,	2 do.
Pole Nets,	3 men.		
Bag Nets,	4 do.		
Fly Nets,	4 do.		

* This estimate, as regards Fixed Nets, is

No. 6.

on Engines used for Fishing for Salmon, January, 1866.

8. Bag Nets.	9. Fly Nets.	10. Stake Nets.	11. Head Weirs.	12. Box, Crib, &c.	13. Gap, Eye, &c.	14. Sweepers.	15. Coghills.	16. Loop Nets.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
					1 0 0	—	—	—
					0 10 0	—	—	—
					0 13 4	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					0 10 0	—	—	—
					0 10 0	—	—	—
					0 10 0	3 0 0	1 10 0	—
10 0 0	30 0 0	30 0 0	6 0 0	10 0 0	0 10 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					0 10 0	—	—	1 0 0
					1 0 0	—	—	—
					1 0 0	—	—	—
					1 0 0	—	—	—
					0 10 0	—	—	—

No. 7.

CONSERVATORS for the Years 1864 and 1865.

Number and Description of Licences sold in 1865.															1865. Amount of Licence Duty.	1865. Per centage on Poor Law Valuation.	1865. Total Amount received for Licence Duties.	1865. Average No. employed.	Increase or Decrease between 1864 and 1865.			
1. Salmon Rods.	2. Cross Lines.	3. Snap Nets.	4. Draft Nets.	5. Drift Nets.	6. Trammel Nets, or Draft Nets for Pollen.	7. Pole Nets.	8. Bag Nets.	9. Fly Nets.	10. Stake Nets.	11. Head Weirs.	12. Box, Crib, &c.	13. Gap, Eye, &c.	14. Sweepers.	15. Coghills.	16. Loop Nets.					Increase in Amount.	Decrease in Amount.	Increase in Number employed.	Decrease in Number employed.
															£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.		
319	1	–	23	–	–	–	–	–	–	–	–	–	–	–	230 10 0	—	230 10 0	459	54 0 0	—	138	–
93	–	–	57	–	1	–	–	–	–	–	–	–	–	–	161 5 0	—	161 5 0	437	25 0 0	—	–	5
134	20	374	30	93	–	–	–	–	–	1	4	17	–	–	1,161 6 8	—	1,161 6 8	2,352	314 0 0	—	74	–
345	43	42	19	–	3	–	–	–	1	–	–	–	–	–	413 0 0	40 0 0	453 0 0	723	—	383 10 0	235	–
455	7	–	52	2	–	–	–	–	–	–	–	–	–	–	403 10 0	—	403 10 0	791	—	4 0 0	4	–
29	–	–	12	–	–	–	–	–	–	–	–	–	–	–	32 10 0	—	32 10 0	101	—	9 0 0	–	15
12	–	–	10	5	–	–	1	–	–	–	–	–	–	–	33 10 0	—	33 10 0	101	4 0 0	—	33	–
43	–	–	9	–	–	–	2	–	–	–	–	4	4	–	69 0 0	—	69 0 0	137	2 10 0	—	–	4
137	8	1	73	–	–	–	–	–	–	–	2	–	–	–	324 10 0	—	324 10 0	596	—	70 10 0	18	–
437	43	32	134	35	21	13	–	–	4	1	9	180	–	–	1,313 0 0	—	1,313 0 0	2,092	159 6 8	—	40	–
116	8	–	11	–	3	–	–	–	–	–	4	14	–	–	223 10 0	24 10 0	248 0 0	234	38 10 0	—	–	19
53	–	–	14	–	–	2	–	–	–	–	–	–	–	–	99 0 0	—	99 0 0	143	28 0 0	—	–	6
28	–	–	23	–	–	–	–	–	–	–	–	–	–	–	97 0 0	—	97 0 0	166	—	7 0 0	3	–
58	–	–	12	4	–	–	–	–	–	–	7	7	–	–	183 0 0	—	183 0 0	167	—	126 0 0	–	40
27	–	–	22	–	–	–	–	–	–	–	–	3	–	–	96 10 0	—	96 10 0	165	10 10 0	—	–	5
75	8	–	31	–	–	2	–	–	1	–	3	–	–	28	–	276 0 0	80 0 0	356 0 0	317	—	3 0 0	47	–
45	–	–	11	–	–	–	–	–	–	–	5	–	–	–	9	100 15 0	—	100 15 0	122	6 15 0	—	9	–
108	6	–	34	–	–	3	–	–	3	–	–	–	–	–	–	264 0 0	—	264 0 0	345	—	277 0 0	58	–
74	1	2	112	–	68	–	2	–	–	–	4	40	–	31	–	578 10 0	41 0 0	619 10 0	1,013	110 10 0	—	141	–
21	–	–	12	–	–	–	13	–	–	–	–	–	–	–	–	187 0 0	—	187 0 0	145	—	124 0 0	–	36
127	11	6	75	–	–	–	1	–	–	1	4	85	–	–	–	290 0 0	—	290 0 0	800	—	28 0 0	87	–
2736	156	457	776	139	96	20	19	–	9	3	42	350	4	59	9	6,537 6 8	185 10 0	6,722 16 8	11,406	753 1 8	1032 0 0	887	130

men employed is made up as follows:—

Stake Nets, . . 4 men.
Head weirs, . . 1 man.
Box, crib, &c. (every 5) 2 men.

Gap, Eye, &c. . . 2 men.
Sweepers, . . 6 do.

Coghills, . . . 1 man.
Loop or Frame Nets, . 1 do.

not adopted in body of Report—see page 4.

APPENDIX, No. 8.

APPENDIX, No. 8.

APPLICATIONS for BY-LAWS, RULES, &c., received by COMMISSIONERS.

District or Place.	Nature of Application.	Observations.
Letterkenny District,	To alter the close season,	Consideration postponed.
Coleraine District,	To alter the close season for pollen,	Ditto.
Sligo District,	To alter close season,	Ditto.
Galway District,	Ditto,	Ditto.
Lismore District,	Ditto,	Ditto.
Waterford District,	Ditto,	Ditto.
Coleraine District,	To prohibit the use of draft-nets for pollen in Lough Neagh,	Ditto.
Cork District,	To prohibit net-fishing in certain portions of the Bandon River,	Under consideration.
Limerick District,	To prohibit net-fishing near mouth of River Cashen,	Consideration postponed.
Waterford District,	To prohibit snatching,	By-law in course of publication.
Wexford District,	To prohibit all net-fishing during salmon close season between new bridge of Wexford and bridge of Enniscorthy.	Consideration postponed.
Galway District,	To prohibit snatching,	By-law in course of publication.
Derryinver River,	To remove obstructions,	Under consideration.
Londonderry District,	To inspect obstructions on Mourne River,	Inquiry to be held.
Coleraine District,	To remove obstructions at mouth of Cutts,	Inquiry held; decision postponed
Shimna River, co. Down,	To define mouth,	Inquiry to be held.
Limerick District,	To define boundaries between tidal and freshwaters of Rivers Feale, Geale, and Cashen.	Under consideration.
Cork District,	To form Argideen River into a separate district,	Requirements of Act not complied with by applicants.
Dublin District,	To prevent deleterious matter being allowed to flow into River Liffey.	Inquiry held.
Kenmare District,	To inquire into the fishing near the mouths of rivers,	Inquiry held.
Sligo District,	To have new fish-pass on Sligo Weir,	Under consideration.
Waterford District,	To build fish-passes on Weirs,	Survey made.
Skibbereen District,	To design new fish-pass for Lurrega Mill Weir,	Pass built.
Londonderry District,	To alter size of meshes of nets,	Inquiry to be held.
Bangor District,	Ditto,	By-law granted for portion of district.
Ditto,	To prohibit the removal of gravel from spawning-beds,	By-law granted for River Owenmore.
Ditto,	To curtail the open season for angling,	Under consideration.
Galway District,	Ditto,	Ditto.
Waterford District,	Ditto,	Ditto.
Ballina District,	Ditto,	Ditto.
Ballyshannon District,	Ditto,	Ditto.
Limerick District,	Ditto,	Ditto.
Fergus River,	To prohibit all kinds of fishing within twenty yards of Ennis Weir,	By-law made.
Shannon River,	Ditto of Tarmonbarry Weir,	Ditto.
Drogheda District,	To survey White Mills Weir, River Dee, for fish-pass,	
Waterford District,	To permit the use of small meshed nets in rivers running through Bessborough Demesne.	By-law made.
Bantry District,	To reduce the licence on nets,	Not granted.
Ballinakill District,	To alter boundaries of district,	In course of publication.
Bangor District,	Ditto,	Ditto.
Ballyshannon District,	To permit the use of small meshed nets in Loughhead River,	Inquiry to be held.
Ditto,	To define mouths of Oily and Loughhead Rivers,	Ditto.
Ballina District,	To define boundaries between tidal and fresh waters, River Moy,	Order made.
Wexford District,	To alter close season,	Under consideration.
Cork District,	To define boundaries between tidal and fresh waters, River Bandon,	Order made.
Ditto,	To survey weirs on rivers for fish-passes,	Surveys made.
Ditto,	To prohibit snatching in district,	By-law in course of publication.
Dublin District,	To alter close season,	Under consideration.
Limerick District,	To define mouth of Clohane River, Co. Kerry,	Inquiry to be held.
Kenmare District,	To alter close season,	Under consideration.
Killarney District,	To alter close season,	Ditto.
Lismore District,	To alter close season,	Ditto.
Limerick District,	To remove obstructions in Dunbeg River,	Ditto.
Ditto,	To prohibit net fishing near Killaloe,	Not granted.
Ditto,	To alter fish-pass at Ennis,	Survey made.
Ditto,	To permit the use of small meshed nets in Lough Derravarragh, Co. Westmeath.	Under consideration.
Wexford District,	To permit the use of small meshed nets in rivers running through Lord Fitzwilliam's property.	Ditto.
Waterford District,	To prohibit net fishing in fresh waters of River Nore,	Ditto.
Skibbereen District,	To prohibit net fishing within certain distance of Lurrega Mill Weir, River Ilen.	Ditto.
Waterford District,	To cause fish-pass to be built by the owner on St. Mullins' Mill Weir.	Ditto.
Lismore District,	To build fish-pass on Fermoy Weir,	Pass built.
Dublin District,	To prohibit removal of gravel in Liffey,	

APPENDIX, No. 9.

LIST of FISHING WEIRS and FISHING MILL DAMS surveyed by directions of the Commissioners.

River.	Name of Weir.	River.	Name of Weir.
Suir,	Coolnamuck.	Moy,	Foxford.
Nore,	Innistiogue.	Erne,	Ballyshannon.
,,	Rockview.	Bundrowes,	Bundrowes.
,,	Jerpoint.	Eske,	Donegal.
,,	Dysart.	Gweebarra,	Gweebarra.
Tay,	Woodhouse.	Lackagh,	Lackagh.
Blackwater,	Lismore.	Leenane,	Rathmelton.
Lee,	Duke of Devonshire's.	Owenea,	Owenea.
,,	North Fishery.	Buncrana,	Buncrana.
,,	South Fishery.	Finn,	Finn.
Carra,	Carra.	Bann,	Cutts.
Shannon,	Lax.	Bush,	Bush.
Corrib,	Galway.	Boyne,	Oldbridge.
Spiddal,	Spiddal.	,,	Rosnaree.
Ballinahinch,	Ballinahinch.	,,	New Grange.
Moy,	Ballina.		

APPENDIX, No. 10.

LIST of MILL WEIRS, OBSTRUCTIONS, &c., surveyed for Fish Passes, and of FISH PASSES BUILT.

River.	Name of Weir or Obstruction.	River.	Name of Weir or Obstruction.
Shannon,	Athlone, } Passes built.	Blackwater,	Fermoy (built).
,,	Tarmonbarry, }	Ilen,	Lurrega (built).
Nenagh,	Clarianna.	Lee,	Ballincollig.
,,	Grange.	,,	Gill Abbey.
,,	Riverstown.	,,	Water Works.
,,	Tyone.	Bride,	Oven's Mills.
,,	Caherass.	,,	Bride Mills.
,,	Ballyartella.	,,	Burnt Mills.
Mulcaire,	Ballyclough.	Middleton,	Allen's Mills.
Annacotty,	Annacotty.	,,	Knockgriffin.
,,	Abington.	Dee,	White Mills.
Maigue,	Croom.	Eske,	Drimlaght.
Fergus,	Ennis (nearly completed).	Oily,	Milltown.
Spiddal,	Spiddal Fall.	,,	Miltown Cloth.
Suir,	Cahir.	,,	Oily.
,,	Clonmel.	Boyne,	Navan (built).
,,	Poultrealagh.	,,	Blackcastle (built).
,,	Altavilla.	Blackwater,	Vance's (built).

APPENDIX, No. 11.

BY-LAWS, ORDERS, &c., made by the COMMISSIONERS.

District or Place affected by By-Law, &c.	Nature of By-Law, Order, &c.	Date.
Moy,	Defining boundaries between tidal and fresh waters,	26th July, 1865.
Maine,	Ditto,	Ditto.
Laune,	Ditto,	Ditto.
Dublin District,	Prohibiting the use of draft nets of a greater length than 350 yards, in that part of the River Liffey situated between the Island Bridge weir and a line drawn due north from the Poolbeg Lighthouse.	19th January, 1865.
Limerick District,	Prohibiting fishing by any means whatsoever within twenty yards of the weir wall of Tarmonbarry, on River Shannon.	5th June, 1865.
Ditto,	Do. within twenty yards of weir wall at Ennis, on River Fergus.	26th June, 1865.
Cork District,	Prohibiting the use of otter, lyster, strokehaul, drew-draw, or gaff, &c., in any tidal waters within district.	31st May, 1865.
Ditto,	Prohibiting snatching, or attempting to snatch salmon with any kind of fish-hook, covered in part or in whole with any matter or thing, or uncovered.	1st June, 1865.
Killarney District,	Prohibiting the use of the otter, lyster, spear, strokehaul, &c., in any tidal waters in district.	8th February, 1865.
Galway District,	Prohibiting snatching, or attempting to snatch salmon in any tidal or fresh water in district with any kind of fish-hook, covered in part or in whole with any matter or thing, or uncovered.	3rd March, 1865.
Waterford District,	Ditto,	26th August, 1865.
Bangor District,	Prohibiting the removal of gravel or sand from any part of the bed of the Owenmore River, in the county Mayo, where the spawning of salmon or trout may take place.	20th May, 1865.
Waterford District,	Permitting the use of nets having meshes of one inch from knot to knot for the capture of fish within the waters in, and rivers running through the demesne of Bessborough, in the county Kilkenny, provided that no net less than one and three-quarter inches from knot to knot shall be used during April, May, and June.	5th June, 1865.
Inch River,	Defining mouth of river, &c.,	
Slaney River,	Defining mouth of river and boundaries between tidal and fresh waters.	
Owenavarragh River,	Ditto,	
General—every District,	Rules and Regulations to be observed at Elections of Conservators.	See Appendix, No. 18.

APPEN

ABSTRACT of STATEMENTS from Clerks of Boards of Conserv

Number and Name of District.	General state of the Salmon and Inland Fisheries of Ireland.	Whether the take of Salmon in 1865 was more or less productive than in 1864, and to what is the increase or decrease attributed.	Average price of Salmon obtained by the captors.	Whether Salmon purchased for Exportation, and if so, what proportion does it bear to that purchased for Home Supply, and to what Market is it principally sent.	The amount of Prot during Close Seas of 1865, as compared preceding year of 1
1. Dublin, .	The public fisheries have had a great take of salmon last year, and a fair prospect of improvement.	At the public right of fisheries there has been a slight increase.	1*s.* to 1*s.* 6*d.* per lb.	Home consumption.	About the same.
2. Wexford, .	Good. There is a prospect of further improvement.	Less productive; but cannot account for it.	8*d.* to 1*s.* per lb.	Home consumption.	Greater, more w bailiffs being empl
3. Waterford,	The state of the salmon and inland fisheries of the district, judged of by the extraordinary falling off in the capture of salmon during last season, cannot be regarded as encouraging. The disimprovement very great as compared to even such a season as 1864.	Last year far less productive than 1864. Such a failure had seldom or ever been known.	Last year salmon reached a price hitherto unknown in the market, 2*s.* 8½*d.* per lb. having been paid by the dealers for exportation.	Almost entirely for exportation.	More extended in fresh waters.
4. Lismore, .	The general state appears good, though the take last year fell short of that of previous years.	Less productive; but this is attributed to the mode of capture being less effective since the stake nets were abolished, and net fishing not being more understood in district.	About 1*s.* per lb.	Almost all exported.	About the same.
5. Cork, .	Not improving, and no sign of improvement.	Less.	About 1*s.* 2*d.* per lb.	Nearly seven-eighths for exportation.	Amount greater.
6[1]. Skibbereen,	The general condition good. They have improved, and the fish pass over. The mill being now finished, will enable the salmon to get up earlier to spawn.	About the same.	6*d.* per lb.	About one-third sent to Cork market, the remainder sold at home.	The same.
6[2]. Bantry, .	The general condition good. Fishings have improved, owing to the protection afforded.	More productive.	6*d.* per lb.	Entirely for exportation. To Cork market.	Two additional ba on rivers.
6[3]. Kenmare,	Very fair. Last season was dry, and the fish was not able to go on the rivers until late. A great improvement is expected from the extra care of the rivers during the close season.	A decrease from previous year. Cannot say from what reason, unless from the summer being so dry.	6*d.* per lb. general average.	Chiefly to Dublin market.	Nearly double, as t are extra bailiffs each river, and a l bailiff to watch , bailiffs paid by the prietors.
7. Killarney, .	Nearly an average. No sign of improvement.	Less productive.	7*d.* to 1*s.* 10*d.* per lb.	Almost all exported.	More.
8. Limerick, .	Very satisfactory. The quantity captured in 1865 less than in 1864; but there has been no apparent diminution in supply of breeding fish. The prospect very good, owing to the quantity of fish on the spawning beds and the protection which they have received.	Less productive. Cannot say to what decrease is to be attributed. It was general throughout Ireland. In the fresh waters it may be attributed to the unusually low state of the water during the fishing season.	About 1*s.* 6*d.* per lb. for spawning fish, 7*d.* for peal.	Chiefly for exportation to Dublin, London, Manchester, &c.	Number of bailiffs ployed during close son of 1864, 98. Ditto, 1865, 112.

12.

o the State of the Salmon and Inland Fisheries.

hether the uantity of eding Fish rved in the ers has been er or less than eding Year.	Whether Offences against the Fishery Laws have diminished.	Whether the Fisheries have been more injured by pollution from Manufactories or otherwise, in 1865, than in 1864.	Suggestions from Conservators.	Number of Water Bailiffs employed.	For what length of time employed.	Rate of Wages paid by the Conservators.
ter.	Fishing for Salmon under pretence of fishing for other fish is on the increase.	The salmon fishing of the river at all times of drought exposed to great danger from the number of chemical and gas works which discharge into its tideways. However, no recent destruction has been detected.	That all engines used for fishing in waters frequented by salmon be subject to licence duty.	1 inspector. 1 water bailiff. 2 Ditto. 1 Ditto. 1 Ditto. 1 Ditto. 1 Ditto. 1 Ditto.	All the year. Ditto. Ditto. Ditto. For 5½ months. Ditto. For 6 months. „ 2 „	At £62 a year. „ £31 4s. a year. „ £20 a year. „ £10 „ Paid £32 6s. „ £14 8s. „ £9 15s. „ £4 16s.
ter.	Diminished.	No manufactories.	—	12 water bailiffs. 5 Ditto.	During close season. „ open „ Inspector and assistant bailiff during the year, together with 3 other bailiffs who received a low rate of wages in the open season.	7s. 6d. to 8s. per week in close season, and 2s. 6d. and 3s. 6d. for weekly close season. Inspector 15s. a week in close season, and 8s. in open season.
is said the ers are full breeding fish.	Not greater than in former years.	Not more so.	—	117 water bailiffs.	7 yearly. 13 Ditto. 2 during open season. 2 for 3 months. 9 Ditto. 65 for close season. 17 Ditto. 2 Ditto.	At £2 a month. „ £1 „ „ £2 „ „ £2 „ „ £1 10s. a month. „ £1 10s. „ „ £2 a month. „ £5 each.
uty of breed- g fish in ery river and ery mountain ream.	Not many offences.	No pollutions.	Equalizing licences on rods all over Ireland.	In close season about 60; often more, sometimes less.	Put on early, about 1st Nov. to middle of Dec.; some to 1st February and later; some remain all the year round on fish passes and tideways.	10s. per week to head bailiffs and 6s. to the others.
ut the same.	Diminished.	About the same.	Fish passes wanted over Cork Waterworks, and other weirs in district. A uniform rate of licences for rods. Fish passes to be paid for out of public funds of Board of Public Works.	In close season about 24. In open season 6.	Principally during the close time.	Usually 8s. per week.
ut the same.	Diminished.	No manufactories.	—	2 paid entirely by Conservators, and 3 partly by Conservators and partly by Fishery Association.	All the year.	2s. 6d. per week.
eater.	Diminished.	No pollution from manufactories.	—	5 during past year.	2 entire year. 1 Ditto. 1 Ditto. 1 Ditto.	At £11 14s. per annum. „ £3 from Conservators. „ £2 5s. „ „ £2 0s. 6d. „ The difference between these sums and £11 14s. having been made up by private subscriptions.
eater and very d Prospects xpected.	Nearly doubled.	No manufactories.	No licence should be issued for a rod before 1st April. From 6 to 12 spent fish killed each day in February, which diminishes the spawning fish greatly.	About 16.	For the year round.	£2 to £6 for the year, and in addition they receive from £1 to £4 from the proprietors.
ts.	Diminished.	No.	—	20. 1. 7. 8. 30. 5. 1. 2. 1. 6. 1. 1.	For about 4 months. Ditto. Ditto. Ditto. Ditto. A whole year. Ditto. Ditto. Ditto. Ditto. Ditto. For about 3 months.	At £2 10s. each. „ £5 „ „ £3 „ „ £4 „ „ £3 10s. „ „ £8 „ „ £4 „ „ £9 „ „ £3 „ „ £5 „ „ £2 „ „ £2 „
onsiderably greater than 1864.	No. of convictions in 1864, 119; in 1865, 123.	No injury.	—	33 permanently: 40 during the open season for netting, and 54 between that and commencement of spawning season. No. at present 112.	Some permanently, others during open season, and an additional number during close season.	Varies from 5s. to £1 per week.

ABSTRACT of STATEMENTS from Clerks of Boards of Conservato

Number and Name of District.	General state of the Salmon and Inland Fisheries of Ireland.	Whether the take of Salmon in 1865 was more or less productive than in 1864, and to what is the increase or decrease attributed.	Average price of Salmon obtained by the captors.	Whether Salmon purchased for Exportation, and if so, what proportion does it bear to that purchased for Home Supply, and to what Market is it principally sent.	The amount of Protection during Close Season of 1865, as compared with preceding year of 1864.
9. Galway, .	Upon the whole, not so satisfactory. The quantity of fish captured has been less generally, and in some parts of district it is feared there is a falling off in number of fish on spawning beds.	Less productive, which is attributed to the unusual dryness of the last two seasons.	About 9*d.* per lb.	Nine-tenths for exportation to England.	Fully equal to any former year.
10[1]. Ballynakill.	No improvement.	Not so productive.	About 6*d.* per lb.	About one-fourth for Dublin market.	Much the same.
10[2]. Bangor, .	Depressed and not improving.	Less productive, and cannot ascribe a satisfactory reason.	—	Almost all for exportation.	Protection quite as full, in consequence of the continued employment of water-bailiffs by the owners of the tidal fisheries.
11. Ballina, :	Cannot say improving, last year's catch being less than previous year. Cannot say there is any prospect of further improvement.	Less productive.	—	A small portion purchased for exportation; but cannot say the proportion it bears to that purchased for home supply.	£158 12*s.* 6*d.* less than 1864 by the Conservators.
12. Sligo, .	Same as usual. No improvement.	Less.	6*d.* per lb.	All exported.	Good.
13. Ballyshannon.	Improving. There has been less poaching this season, from which improvement may be expected.	Some increase in the larger rivers. The smaller ones were too low in consequence of the dry weather. The coast fisheries and number of draft-nets very much increased.	5½*d.* per lb.	Almost all exported to England.	An increase in protection. The constabulary give more aid.
14. Letterkenny.	In some parts in a satisfactory state. Not improved since last return, generally, principally owing to the unprecedented drought; but improvement is to be anticipated.	Less productive; attributed to long drought, and rivers being nearly dry.	February to May, 1*s.* 8*d.* to 2*s.* per lb.; and till August, 6*d.*	Almost all exported to Londonderry and Liverpool.	Rather increased, and the police continuing to afford their efficient aid.
15[1]. Londonderry.	In an improved state. The improvement will depend on the efficiency of protection, and if means are used to prevent trawlers destroying the breeding salmon as they come forward to the mouths of the breeding rivers.	About an average; but, on account of the dry weather, the fish was very late.	About 9*d.* per lb.	Nearly all sent to the English market. The Derry market supplied at 1*d.* per lb. under Liverpool price.	More effectual protection, with an increased expenditure of one-third over previous years, and a Head Water Inspector put on each river.
15[2]. Coleraine,	Very prosperous. They have improved, and every prospect of further improvement.	More productive.	8*d.* to 2*s.* 6*d.* per lb.	Two-thirds for exportation.	Much the same.
16. Ballycastle,	Little or no change in the general state.	Less productive.	8*d.* to 1*s.* per lb.	Almost all exported to Liverpool.	Much the same as regards water bailiffs; more rendered by the constabulary.
17. Drogheda,	Improving. Improvement especially in the Tidal Fisheries, and good prospects of further improvement.	More productive in the tidal and less in the inland than preceding year.	About 1*s.* per lb.	About 3 to 100 used for home, nearly all exported, Dublin, Liverpool, &c.	Much better, and an increased force of water bailiffs.

12.

o the State of the Salmon and Inland Fisheries.

hether the quantity of eeding Fish erved in the ers has been er or less than eeding Year.	Whether Offences against the Fishery Laws have diminished.	Whether the Fisheries have been more injured by pollution from Manufactories or otherwise, in 1865, than in 1864.	Suggestions from Conservators.	Number of Water Bailiffs employed.	For what length of time employed.	Rate of Wages paid by the Conservators.
in general, s feared.	Diminished.	No pollution.	To provide greater facility for salmon to get from the River of Galway to the upper waters than is provided by the present salmon ladder.	Last year 20.	Although employed by the year are only on actual duty during the time the fish are on spawning beds or getting to them, about 12 weeks.	Inspector. £30 a-year. Head bailiff, £10 „ Bailiffs—4 at £5 a-year each. „ 6 „ £2 10*s.* „ „ 2 „ £2 „ „ 1 „ 12*s.* a-week; and as much more by the owners of several fisheries, who also employ over 200 One head bailiff so employed is paid over £80 a-year; another, £45.
quite so merous as t year.	Increased.	—	To extend bounds of district as applied for.	30 appointed by Conservators. 15 by proprietors of rivers.	—	Head bailiff has £10 a-year; remainder, 30*s.* to 40*s.* for close season.
ter.	Diminished.	Not injured.	To prohibit removal of gravel from rivers, and to permit the use of small meshed nets, so as to kill, and to shorten angling season.	66.	Water bailiffs from Sept. to end of April. Inspectors continued.	£2 each for the time they are employed. £5 to £10 per annum.
some rivers ore—in some s.	In the open season increased. In the close season decreased.	No injury.	To alter the season for angling, as requested by resolution of October, 1864. And great encouragement is held out to persons infringing the laws, by the frequent reduction of penalties by the Lord Lieutenant.	240 last close season, 12 last open season.	Generally commencing in Oct. and ends as soon as salmon fry have gone to sea.	Paid 10*s.* to £5 each. Paid £3 10*s.* to £6 each. Sum expended last year, £304 5*s.* This year, the funds having fallen off, they have only been able to allocate £102. The proprietors of the tidal fisheries have to pay large sums for protection. Those of the Ballina fishery alone expend over £1,000 a-year.
h the same.	Much the same. Not many offences.	No injury.	Season for Sligo river should open and close sooner.	1 head bailiff for Ballisodare. 13 other ditto. 1 for Bonet river 2 for Drumcliffe 7 other ditto.	By the year. Ditto. Ditto. Ditto. For the close season.	At £10 per annum. At £3 ditto. At £15 ditto. At £10 ditto. At £2 10*s.* each.
ut the same last year on average.	Diminished.	Less, from steeping flax.	That the particular attention of the Coast Guard should be directed to the coast fishings to prevent breach of weekly close season and fishing without licence.	132 at present; but a far greater number are employed by the proprietors	Yearly; paid half-yearly.	Usual pay £2 each; a few get £4 and £5.
ome rivers a st falling off, counted for, the Leenam er, by the ice in Tully-ll mill weir ving been ilt up.	Diminished.	Not more than preceding year.	A free pass in many mill weirs much required, and, if carried out, would tend considerably to the increase of salmon, at present prevented from free migration.	61.	Employed by the year.	1 at £6 a-year. 37 at £3 „ 6 at £2 10*s.* a-year. 2 at £2 a-year. 1 at 10*s.* „ 14 varying.
ter.	Diminished in some districts, increased in others, because they are now closely watched and detected.	The fishings are injured by the fish being killed at the mill carries and insufficient passes.	To make it compulsory on mill owners to put on guards on sluices to prevent fish being killed.	About 180, including 8 Scotch keepers.	For 2 months in spawning season and 6 weeks when fry descending.	£4 10*s.* to £5. Scotch keepers £30 each.
h greater.	Diminished.	No pollution.	To prohibit the capture of pollen by draft nets.	1 inspector. 2 deputy inspectors. 47 bailiffs.	From the time they are appointed till they are suspended or dismissed it is understood they are in pay of the Board.	Bailiffs from £5 to £8 each, and 1*s.* 3*d.* on fines.
as great.	Increased, if anything.	Less injured.	It would be of great benefit to the tidal fisheries of this district if the Bann and its tributaries were better protected. The Agivey very much poached.	11 yearly. 16 during close season.	11 yearly. 16 during close season.	7*s* to 8*s.* per week
ut the same.	Diminished.	Very much, by flax water and a few manufactories.	No.	1 head water-bailiff. 8 sub ditto. 18 ditto.	By the year. Ditto. During close season.	Paid £3 per month Paid £1 ditto. 2 at £1 10*s.* per month. 3 at 15*s.* ditto. 13 at £1 ditto.

APPENDIX, Nos. 13 & 14.

APPENDIX,

CERTIFICATES granted by the SPECIAL COMMISSIONERS for IRISH FISHERIES, in pursuance of the Fixed Engines for fishing

No.	Place.	Name of Person to whom Certificate granted.	Date of Certificate.	District in which net situated.	Townland.	Parish.
			1865.			
1	Sea off co. Londonderry,	Henry O'Neill,	31 August,	Coleraine,	East Ballygelagh,	Ballyaghran,
2	Ditto, Antrim,	A. G. Fullerton,	5 September, 1865,	Ballycastle,	Larrybane,	Ballintoy,
3	Ditto,	Ditto,	Ditto,	Ditto,	Carrickaraide,	Ditto,
4	Kenmare River,	E. B. Hartopp,	16 January, 1866,	Kenmare,	Rath,	Kilcrohane,
5	Sea off co. Antrim,	Thomas Black,	2 October, 1865,	Ballycastle,	Portrush,	Dunluce,
6	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
7	Ditto,	Sir E. MacNaghten,	Ditto,	Ditto,	Portbradden,	Ballinlog,
8	Ditto,	Thomas Black,	Ditto,	Ditto,	Portrush,	Dunluce,
9	Ditto,	Earl of Antrim,	Ditto,	Ditto,	Torr,	Culfeightrin,
10	Ditto,	Thomas Black,	Ditto,	Ditto,	Portrush,	Dunluce,
11	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
12	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
13	Ditto,	Sir Alan E. Bellingham,	28 October,	Drogheda,	Dunany,	Dunany,
14	Ditto,	J. C. Anderson,	Ditto,	Ballycastle,	Dunseverick,	Dunseverick,
15	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
16	Ballycotton Bay,	John Litton,	31 October,	Lismore,	Kilmahon,	Kilmahon,
17	River Shannon,	William B. Barrington,	7 November,	Limerick,	Ballyhoolahan,	Loghill,
18	Sea off co. Louth,	John F. Jones,	16 November,	Drogheda,	Drahanstown,	Dunany,
19	Barrow, otherwise Suir, Nore, and Barrow conjoined.	Lord Templemore,	4 December,	Waterford,	Nook,	St. James's,
			1866.			
20	Lough Foyle,	The Irish Society,	2 January,	Londonderry,	Grandsha,	Glendermott,
21	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
22	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,	Ditto,
23	River Erne,	Alicia Sheil,	20 January,	Donegal,	Fenner,	Innismacsaint,
24	River Shannon,	S. Cunningham,	—	Clare,	Ailroebeg,	Kilfidane,

APPENDIX No. 14.

REGULATIONS for the ELECTIONS of CONSERVATORS of FISHERIES.

SALMON FISHERIES ACTS, IRELAND.—Acts 5th and 6th Vic., chap. 106; 7th and 8th Vic., chap. 108; 8th and 9th Vic., chap. 108; 9th and 10th Vic., chap. 114; 11th and 12th Vic., chap. 92; 13th and 14th Vic., chap. 88; 26th and 27th Vic., chap. 114.

NOTICE.

We, the Special Commissioners for Irish Fisheries, hereby call the attention of all whom it may concern to the following provisions of the Fishery Acts, and Regulations we are empowered to make under those Acts, respecting the Elections of Conservators of Fisheries. Section 28 of the Act 26 and 27 Vic., c. 114, enacts—"That on the First Monday in the month of October, in the year One Thousand Eight Hundred and Sixty-four, all existing Boards of Conservators shall cease, and new Boards shall be elected." And it is prescribed by the said Acts, and we do hereby fix and direct that the following Forms and Regulations shall be observed at the said elections:—

1. The Boards of Conservators shall fix and publish notice of the times and places for the meetings of electors, in each electoral division, for the election of Conservators for the same.

2. Two weeks' notice thereof shall be given by hand-bills and advertisements in two or more newspapers circulating in the district.

3. The meetings for elections shall commence at the hour named in the notice to be published by the Boards of Conservators, and no votes shall be received after four o'clock in the afternoon of the day so fixed.

4. All persons shall be entitled to vote at such meetings who shall have paid licence duty for the current year, within the electoral division, for which such meeting is held.

5. All such persons shall choose a chairman to preside at such meeting, who shall receive the votes of the electors.

6. No person shall be eligible for the office of conservator in any electoral division in which he does not reside or possess real property.

7. All persons shall produce their licences for the current year at the time of voting; and such licence shall not be received unless it shall have been taken out on or before the day prior to the day of election.

8. All persons entitled as aforesaid to vote at such meetings shall be entitled to have a vote or votes thereat, according to the following scale (that is to say) if the licence duty paid—

Shall not amount to	£2,	One vote.
Shall amount to	£2, and not amount £5,	Two votes.
Shall amount to	£5, and not amount £10,	Three votes.
Shall exceed	£10,	Four votes.

9. All persons voting by proxy shall endorse upon their licence the name of the proxy whom they authorize to vote for them; and the said licence shall be produced at the time of voting by the said proxy, such proxy being a qualified elector.

10. The chairman of such meetings respectively shall declare the persons elected to act as conservators as soon as convenient, and shall certify under his hand the election of each conservator, and furnish him with a certificate, which shall be sufficient authority for him to act as such conservator; and shall also, within four days after such election, cause a list of such conservators with a statement of the residence and post-town of each, to be transmitted to our office, 4 Dawson-street, Dublin. And shall also publish the said list in one or more newspapers circulating in the district.

11. If in any district one or more persons shall possess a several or exclusive fishery or fisheries therein, as owner, lessee, or occupier, valued under the Acts for the more effectual relief of the Destitute Poor in Ireland at one hundred pounds yearly or upwards, he or they shall be entitled to sit with the elected conservators for such district, and shall be deemed *ex-officio* a conservator or conservators for the same, so long as he or they shall possess such fishery or fisheries, and shall have a vote in all matters, and have all the powers and privileges under the Act which the elected conservators may individually possess: provided always, that when a fishery so rated shall be held by several persons

No. 13.

provisions of the 6th section of the Act 26th and 27th Vic., c. 114, for maintaining and using for Salmon or Trout.

Barony.	County.	Description of Fixed Net.	Particulars of Size, &c.	Observations.
Coleraine,	Londonderry,	Bag-Net,	Net, 138 yards—first pole from shore, 12 yards; last do., 150 yards.	
Carey,	Antrim,	Ditto,	Leader, 72 yards; net, 20 yards,	Larrybane net.
Ditto,	Ditto,	Ditto,	Leader, 50 yards; net, 20 yards,	Carrickaraide net.
Dunkerron, S.,	Kerry,	Ditto,	Leader, 240 feet; net, 54 feet.	
Lower Dunluce,	Antrim,	Ditto,	Leader, 600 feet; net, 66 feet,	Curran net.
Ditto,	Ditto,	Ditto,	Leader, 330 feet; net, 66 feet,	Big Duncan net.
Carey,	Ditto,	Ditto,	Leader, 246 feet; net, 84 feet,	Portbradden net.
Lower Dunluce,	Ditto,	Ditto,	Leader, 330 feet; net, 66 feet,	Skerryvan net.
Carey,	Ditto,	Ditto,	Leader, 150 feet; net, 48 feet,	Torr net.
Lower Dunluce,	Ditto,	Ditto,	Leader, 240 feet; net, 66 feet,	Little Duncan net.
Ditto,	Ditto,	Ditto,	Leader, 288 feet; net, 66 feet,	Portneen net.
Ditto,	Ditto,	Ditto,	Leader, 330 feet; net, 66 feet,	Flagstaff net.
Ferrard,	Louth,	Head Weir,	South side, 627 feet; east side, 204½ feet; Fish Pass, south side, 3⅓ feet; open at end in river, 4½ feet.	
Carey,	Antrim,	Bag-Net,	Net, 316 feet; head, 63 feet.	
Ditto,	Ditto,	Ditto,	Ditto, ditto.	
Imokilly,	Cork,	Ditto,	271 feet.	
Shanid,	Limerick,	Fly-Net,	Weir, 190 feet; H.W.M. to in-pole, 90 feet.	
Dunany	Louth,	Bag-Net,	Leader, 360 feet; bag, 42 feet; first pole, 300 feet from fixed point on shore.	
Shelburne,	Wexford,	Head Weir,	Shore wing, 225 feet; channel wing, 94 feet; space between shore wing and rock, 45 feet.	Buttermilk Castle weir.
Tirkeeran,	Londonderry,	Stake-Net,	In-pole of Shore Leader to outer pole of same, 153 feet; out-pole of do. to do. of Ebb Leader, 82 feet; out-pole of chambers of net channelwards, 17 feet.	The Crook net.
Ditto,	Ditto,	Ditto,	In-pole of Shore Leader to outer pole of same, 196 feet; out-pole of do. to do. of Flood Leader, 112 feet; out-pole of chambers of net channelwards, 22 feet.	The Shell Rock net.
Ditto,	Ditto,	Ditto,	In-pole of Shore Leader to outer pole of same, 262 feet; out-pole of do. to do. of Flood Leader, 152 feet.	The Chapel Brook net.
Tyrhugh,	Donegal,	Ditto,	Land arm, 210 yards flood.	
Clonderlaw,	Clare,	Ditto,	Wing, 42 yards; ebb wing, 44 yards.	

as owners, lessees, or occupiers, one person alone shall sit and act as a conservator as aforesaid in respect of such fishery.

12. Magistrates paying licence duty, and being owners of land abutting on rivers or lakes in any district, may act and vote as *ex-officio* members of any board of conservators elected for any such district.

13. The persons elected as aforesaid, together with the said *ex-officio* conservators (*vide* 9 and 10), shall conjointly form a board of conservators of fisheries for such district, and shall continue to hold office for three years from the time of their election, when a new board shall be elected in like manner, and so in like manner at each triennial election.

Given under our hands, and under the common seal of the Commissioners, this 1st day of September, 1864.

(*Seal.*)

Frederick Eden.
Wallace Houstoun.
R. J. Lane.

Appendix, No. 15.

Quantity of Salmon Conveyed by the different Railways for the year ending 31st December, 1865, and Rates of Carriage of Salmon.

Waterford and Limerick Railway.

	Tons. cwts. qrs. lbs.	£ s. d.	
To England *via* Holyhead,	31 14 2 22	at average rate of 6 15 0	per ton.
„ do. Milford,	34 2 1 26	charged at 6 10 0	„
„ Dublin,	68 8 1 3	do. 3 0 0	„
Total,	131 5 1 23		

Limerick and Foynes Railway.

Foynes to Limerick, 106 tons, Rate, 8*s.* 1*d.* per ton.

Midland Great Western Railway.

Salmon, 116 tons, 18 cwt., 0 qrs., 14 lbs.

By Passenger Trains.	Fine Fish, including Salmon, Turbot, Sole, and Lobster. Per Cwt. up to Five Cwt.	Fine Fish, including Salmon, Turbot, Sole, and Lobster. Per Cwt. over Five Cwt.	By Passenger Trains.	Fine Fish, including Salmon, Turbot, Sole, and Lobster. Per Cwt. up to Five Cwt.	Fine Fish, including Salmon, Turbot, Sole, and Lobster. Per Cwt. over Five Cwt.
	s. d.	*s. d.*		*s. d.*	*s. d.*
To Broadstone from Galway, „ „ Oranmore, „ „ Castlerea, „ „ Sligo, „ „ Ballysadare,	2 0	1 6	To Broadstone from Collooney, „ „ Athenry, „ „ Athlone, „ „ Castlebar,	2 0 1 9 2 6	1 6 1 3 2 0

APPENDIX, No. 16.

GREAT SOUTHERN AND WESTERN RAILWAY.

Salmon, 280 tons.

RATES of CARRIAGE of SALMON per GREAT SOUTHERN AND WESTERN RAILWAY.

RATES for SALMON to DUBLIN.

From LIMERICK JUNCTION:

Packages from 22 to	56 lbs.,	.	1s. 6d. each.
„ „ 57 to	84 „	.	2s. 0d. „
„ „ 85 to	112 „	.	2s. 6d. „
„ Above	1 cwt.,	.	2s. 6d. per cwt.

From LIMERICK:

Packages from 22 to	56 lbs.,	.	2s. 0d. each.
„ „ 57 to	84 „	.	2s. 6d. „
„ „ 85 to	112 „	.	3s. 0d. „
„ Above	1 cwt.,	.	3s. 0d. per cwt.

From FERMOY:

Packages from 29 to	56 lbs.,	.	2s. 0d. each.
„ „ 57 to	84 „	.	2s. 6d. „
„ „ 85 to	112 „	.	3s. 0d. „
„ Above	1 cwt.,	.	0s. 9d. for every ¼ cwt. or part of a ¼ cwt.

From KILLARNEY:

Packages from 22 to	56 lbs.,	.	2s. 0d. each.
„ „ 57 to	84 „	.	3s. 3d. „
„ „ 85 to	112 „	.	4s. 0d. „
„ Above	1 cwt.,	.	4s. 0d. per cwt.

From TRALEE:

Packages from 22 to	56 lbs.,	.	3s. 0d. each.
„ „ 57 to	84 „	.	3s. 9d. „
„ „ 84 to	112 „	.	4s. 6d. „
„ Above	1 cwt.,	.	4s. 6d. per cwt.

From CORK:

Packages from 22 to	56 lbs.,	.	2s. 0d. each
„ „ 57 to	84 „	.	2s. 6d. „
„ „ 85 to	112 „	.	3s. 0d. „
Above	1 cwt.,	.	3s. 0d. per cwt.

DUBLIN AND DROGHEDA RAILWAY.

678 hampers and boxes of Salmon, at 2s. 6d. per cwt., equal to about 24 tons 16 cwt.

DUBLIN, WICKLOW, AND WEXFORD RAILWAY.

From Enniscorthy to Dublin, 3 tons 4 cwt. 3 qrs. 14 lbs., forwarded only by Passenger Trains at 2s. per cwt.

IRISH NORTH WESTERN RAILWAY.

128 tons 10 cwt. 2 qrs.

Rates of Carriage of Fish—Enniskillen to Dundalk, 18s. per ton; Derry to Enniskillen, 20s. 9d. per ton; Derry to Dublin, via Enniskillen, 3s. 6d. per cwt.; Derry to Dublin, via Portadown, 3s. 3d. per cwt.

APPENDIX, No. 16.

ABSTRACT of BY-LAWS, ORDERS, &c., in force, relating to the Salmon Fisheries.

Place affected by By-Law, and Date thereof.	Nature of By-Law.
River Liffey, (19th Jan., 1865.)	Prohibiting the catching, or attempting to catch, Salmon with any Net of greater length than 350 yards, in that part of the River Liffey which is situated between the Weir known as the Island Bridge Weir and a line drawn due North from Poolbeg Lighthouse.
River Slaney, Co. Wexford, (25th March, 1854, and 4th March, 1862.)	Prohibiting, during the Close Season for Salmon, the use of Nets of any kind whatsoever, between Ferrycarrig Bridge and the Town of Enniscorthy.
	Prohibiting, during the Open Season for Salmon, the use of Nets with meshes of less size than one and three-quarter inches from knot to knot, between Ferrycarrig Bridge and the Town of Enniscorthy.
River Lee, Co. of the City of Cork, (7th January, 1863.)	Prohibiting, during the Close Season for Salmon, the use of Draft Nets, or any other Net or Nets used as a Draft Net, having a foot-rope and leads or weights affixed thereto, within the following limits, viz.:—in that part of the River Lee, situate between Patrick's Bridge, in the City of Cork, and a line drawn across the said River Lee, from Blackrock Castle, on the south, to the Western extremity of the Townland of Dunkettle, on the North.
Argideen River, (24th Feb., 1860.)	Prohibiting the use of Nets of any kind whatsoever in the tidal part of the river known as the Argideen River, in the County of Cork, situated between the junction of the Owenkeagh or Blind River with the said Argideen River and the Bridge of Timoleague, all in the Barony of the East Division of East Carbery, and County of Cork.
River Shannon, (5th Feb., 1856.)	Prohibiting Net Fishing in that part of the River Shannon between Wellesley Bridge and the Railway Bridge, between 1st June and 12th February.
River Shannon, (22nd Nov., 1862.)	First.—Prohibiting, between the 20th day of July and 1st day of November in each year, the use of Draft Nets, or any other Net or Nets used as a Draft Net, having a foot-rope and leads or weights affixed thereto, within the following limits, viz.:— in that part of the River Shannon situate between the Fishing Weir known as the Lax Weir, and a line drawn due North and South across the said River Shannon at the Western extremity of Graigue Island. Second.—Prohibiting Draft Nets for the capture of Fish of any kind, of a mesh less than one and three-quarter inches from knot to knot, to be measured along the side of the square, or seven inches to be measured all round each such mesh, such measurements being taken in the clear when the Net is wet, in the tidal parts of the River Shannon, or in the tidal parts of any of the Rivers flowing into the said River Shannon.
Lough Ree, River Shannon, (27th August, 1858.)	Permitting the use of Nets in Lough Ree, having a mesh of five inches in the round, measured when the Net is wet.
River Maigue, (17th Oct., 1864.)	Prohibiting the use of Draft Nets between Ferry Drawbridge and the old Bridge of Adare.
Castlemaine Estuary, (27th Oct., 1858.)	Prohibiting, during the Salmon Close Season, the use of Draft Nets having a foot-rope and leads or weights affixed thereto, in the Estuary of Castlemaine inside the Bar of Inch.
Killarney District, (8th Feb., 1865.)	Prohibiting the catching, or attempting to catch, Salmon in any tidal water with a Spear, Lyster, Otter, Strokehaul, Drew-draw, or Gaff, except when the latter instrument may be used solely as auxiliary to angling with rod and line, or for the purpose of removing fish from any legal Weir or Box by the owner or occupier thereof.
Lough Neagh, (22nd April, 1846, and 24th Feb., 1860.)	Permitting Pollen to be taken by Tramnel or Set Nets composed of Thread or Yarn of a fine texture, not less than ten hanks to the pound weight, doubled and twisted with a mesh of not less than one inch from knot to knot, from the 1st of March to the 29th September.
Galway River, Lough Corrib, &c., (24th July, 1846.)	Prohibiting the use of the Instrument, commonly called Strokehaul or Snatch, or any other such instrument, in River Galway, Loughs Corrib or Mask, or their Tributaries.
Clare and Clare-Galway or Turloughmore Rivers, Co. Galway, (22nd Dec., 1862.)	Prohibiting the use of Nets of any kind whatsoever in any part of the Rivers known as the Clare and the Clare-Galway or Turloughmore Rivers, in the County of Galway, above the junction of the said Rivers with Lough Corrib, in the County of Galway.
Teelin Estuary, (24th Feb., 1860.)	Prohibiting the use of Nets for the capture of Fish of any kind, with meshes of less than one inch from knot to knot, (to be measured along the side of the square, or four inches to be measured all round each such mesh, such measurements being taken in the clear when the Net is wet,) on that part of the coast of the County of Donegal inside, or to the North-east and North of lines drawn from Rossan Point to Teelin Head, and from Teelin Head to Carrigan Head, and from Carrigan Head to Muckross Point, all in the Barony of Bannagh, and County of Donegal.

APPENDIX No. 17.

LIST of STONE WEIRS in Ireland used for SALMON FISHING, with their Breadth, and the size of the Queen's Gap or share maintained therein respectively.

Name of Fishery District.	River.	Weir.	Breadth of Stream.	Size of Queen's Gap previous to passing of 26 & 27 Vic., c. 114.	Observations.
			Ft. in.	Ft. in.	
Ballinakill,	Bundorragha,	Bundorragha,	about 60 0	10 0	Not now used.
	Ass or Errive,	Ashleagh,	„ 60 0	No gap,	Ditto.
Bangor,	Owenmore,	Goulamore,	„ 429 0	No gap,	Ditto.
	Munhim,	Munhim,	„ 34 0	No gap,	Ditto.
Ballina,	Moy,	Ballina,	341 8	No gap,	Gap opened 34 feet 2 inches.
	Ditto,	Foxford,	295 10	11 0	Gap opened 29 feet 7 inches.
Sligo,	Sligo,		432 0	No gap,	Not now used.
Ballyshannon,	River Erne,	Ballyshannon,	284 0		A fishing mill-dam. Plan of pass prepared.
	Bundrowes,	Bundrowes,	68 4	No gap,	Gap ordered by Special Commissioners to be opened 6 feet 10 inches.
	Inver,		about 105 0	No gap,	Not now used.
	Ditto,	Eske,	„ 82 0	No gap,	Ditto.
Coleraine,	Bann,	The Cutts of Coleraine,	455 0	18 0	A fishing mill-dam. Pass, 30 feet in breadth, opened.
Ballycastle,	Bush,		230 0	No gap,	Gap opened 12 feet 9 inches.
Drogheda,	Boyne,	Oldbridge,	240 0	22 6	Gap opened 24 feet.
	Ditto,	Rosnaree,	300 0	13 and 35	Gap opened 30 feet.
	Ditto,	Newgrange,	224 0		Postponed for further inquiry.
Letterkenny,	Leenane,	Rathmelton,	159 0	No gap,	Two Gaps ordered by Special Commissioners to be opened of 6 feet each.
	Lackagh,	Lackagh,	211 0	No gap,	Gap to be opened 20 feet.
	Gweebarra,	Gweebarra,	109 0	No gap,	Not now used.
	Owenea,	Owenea,	145 0	No gap,	Gap ordered to be opened 14½ feet.
Londonderry,	Finn,	Killygordon,	about 198 0	No gap,	Gap not determined. Weir not fished.
	Buncrana,	Buncrana,	180 0	No gap,	Gap ordered to be opened 18 feet.
Waterford,	Nore,	Innistiogue,	173 0	47 0	Gap, 60 feet.
	Ditto,	Rockview,	98 0	47 0	Do. 78 feet.
	Ditto,	Jerpoint,	99 0	49 0	Do. 66 feet.
	Ditto,	Dysart,	93 0	44 0	Do. 47 feet.
	Suir,	Coolnamuck,	176 0	45 0	Do.
	Tay,	Woodhouse,	55 0	No gap,	Do. 6 feet.
Lismore,	Blackwater,	Lismore Weir,	315 0	No gap,	Gap opened 31 feet 6 inches.
Cork,	Lee,	The North Lee Fishery Weir or "Hayes' Weir."	408 0	No gap,	A fishing mill-dam. Not now fished.
	Ditto,	The weir above Wellington Bridge.	780 0	No gap,	Ditto.
	Ditto,	"The Upper Gill Abbey Weir."	378 0	No gap,	Ditto.
	Ditto,	"The Sugar House Weir."	117 0	No gap,	Ditto.
Killarney,	Carra,		160 0	No gap,	Gap opened 16 feet.
	Waterville or Curraun.		under 40 0	No gap,	Extension of weekly close season from noon on Friday to noon on Monday ordered instead of gap, stream being under 40 feet—26 & 27 Vic., c. 114, s. 11.
Limerick,	Shannon,	Lax Weir,	840 0	21 0	Gap opened 50 feet.
Galway,	Galway,	Galway Salmon Weirs,	205 10	16 0	Gap opened 20 feet 7 inches.
	Owenmore or Great River.	Ballinahinch Trout and Salmon Weirs.	228 0	No gap,	Gap ordered by Special Commissioners to be opened 22 feet.
	Spiddal,	Spiddal Salmon Weir,	varies greatly; 283 0 to 12 0	No gap,	Ditto, 12 feet.
	Furbough,	The Furbough Salmon Weir.	14 0	No gap,	Ditto, 3 feet.

APPENDIX, No. 18.

RIVERS, the TIDAL and FRESH WATER BOUNDARIES of which have been defined.

River.	Boundary.	Date.
Suir,	A line drawn across river at and opposite to the most up-stream part of the Coolnamuck Weir,	16th March, 1864.
Nore,	The Innistiogue Bridge,	16th March, 1864.
Barrow,	The lowest Weir or Dam used for navigation purposes, near St. Mullins, in county Carlow,	16th March, 1864.
Shannon,	The Weir or Dam known as the Corbally Mill Weir,	9th April, 1864.
Fergus,	The Bridge commonly known as the New Bridge, immediately below the Club House, at Ennis,	9th April, 1864.
Liffey,	The Weir or Dam on said river known as the Island Bridge Weir,	12th August, 1864.
Maigue,	The Bridge across river immediately outside and seaward of the Adare Demesne,	12th August, 1864.
Lee,	The Weir or Dam at the Water Works of Cork, known as the Water Works Weir,	12th August, 1864
Bandon,	The Bridge at Innoshannon, known as the Innoshannon Bridge,	19th January, 1865.
Carragh,	The Carragh Bridge, being the bridge immediately seaward of the Salmon Weir,	19th January, 1865.
Laune,	The shallow at the head of the Pool, commonly called the Cat Pool,	26th July, 1865.
Maine,	A straight line drawn across river at right angles with its course at the boundary between the townlands of Coolclieve and Ballyfinnane,	26th July, 1865.
Moy,	The foot of the falls immediately below the Weirs at Ballina,	26th July, 1865.
Inch,	Ahare Bridge,	1st February, 1866.
Slaney,	Enniscorthy Bridge,	1st February, 1866.

Appendix, No. 19.

Appendix, No. 19.

Copy of Report to Chief Secretary for Ireland on State of Limerick Fisheries, dated 7th September, 1865.

Sir,—We have the honour to inform you that in accordance with your directions we have held an inquiry at Limerick into the working within that district of the Acts of Parliament under which the Boards of Conservators are appointed, and into the management of the Fisheries of the Shannon.

The following parties were severally represented by solicitors :—

The Board of Conservators.
The Clerk of the Board, and two other officers of the Board.
The Shannon Protection Society.
The Shannon Fishing Company, who are the proprietors of the Lax weir.
The Limerick Snap-net Fishermen.

Before stating the results of this inquiry, it may be well to refer briefly to the circumstances under which it was held.

Complaints were made to us during the last autumn that great abuses were prevalent in the Limerick district, and our attention was particularly directed to the manner in which the elections of Conservators had been conducted, and to the scandalous extent of poaching that was suffered to exist in the lower parts, tidal and fresh, of the Shannon. The apparently authentic character of these complaints induced us to refer to them in our Annual Report.

The powers of the Board have been, to a considerable extent, delegated to their Clerk, and he, in a letter addressed to you, Sir, in a report to the Limerick Board of Conservators, and in a letter printed and publicly circulated, averred that we had been "imposed on by incorrect information, and challenged the fullest inquiry."

The report of the Clerk was followed by renewed complaints, publicly preferred, as well as addressed to us by different persons. We furnished the Clerk with a *precis* of the complaints we had received, in order to enable him to meet or explain them when the inquiry ordered by you should be held. That inquiry, twice postponed, after notice of it had been published, in consequence of the inability, unavoidable on his part, of the Clerk to attend, has been now concluded.

That the relative importance of the facts proved may be understood, it will be necessary that we should describe the manner in which the Boards of Conservators are formed, and the advantage that may be taken of defects in the Act under which they are constituted, and for that purpose we quote from our Report of last year :—

"Acting under 11 and 12 Vic., c. 92, the then Commissioners divided Ireland into fishery districts, and each district into two or more electoral divisions. A Board of Conservators was appointed for each district. This Board was composed of ex-officio and of elected members. The ex-officio members consisted of owners, lessees, or occupiers of Several fisheries, valued under the Poor Law Act at £100 or upwards per annum—one person only being entitled to sit on the Board for each fishery.

"The elected Conservators were chosen for each electoral division by persons paying licence duty, section 7 of 11 and 12 Vic., cap. 92, enacting that the 'elected Conservators shall be elected annually* by the persons who shall have paid licence duty, and been licensed within each electoral division in the current year.' Licence-holders were entitled to vote in person or by proxy, according to forms and regulations to be prescribed by the Commissioners. To each licence-holder was given one or more votes, not exceeding four, the number being in proportion to the amount of licence duty paid by him, and according to the following scale —Under £2, one vote; under £5, two votes; under £10, three votes; over £10, four votes.

"It was the intention of the Act that each subdivision of a fishery district, and consequently each interest in it, should be represented on the Board. That the men, for instance, who work their nets in the tidal waters should meet the representatives of the rod fishers coming from the fresh rivers; and that whilst property should be represented to a certain extent in proportion to its amount, too great influence should not be vested in the hands of an individual.

"Grave complaints have been made to us, and the experience of the past year has shown, that this intention has been defeated. It requires no great skill to calculate the strength of the different interests in the respective divisions. When such calculation is made it is most easy to defeat the intention of the Act. Not only can licences be taken out even after the season has closed, but a practice in contravention of the law has arisen of permitting men to fish without a licence, on the understanding that they would take one out in the course of the year. Such a disregard of the Act permits persons desiring to influence an election to delay taking out the licence until its approach; and as the Act does not in terms require the licence to be taken out in the electoral division where the engine is situated, the number of licences proper to any hostile division could be outvoted by a judicious transfer to it of the votes derived from payment of licence duty on engines used in another division fifty miles away.

"Again, the licence duty must be paid on each engine, but such licence need not be made out in the name of the owner or lessee; and when the amount of duty paid exceeds the £10, which gives the maximum of four votes, the licence duty for the one property can be paid in the names of different persons, and the votes multiplied to the full extent admitted of by the amount paid. Dexterous management of this description would place the control of the fisheries in the hands of a section of the Board; and it is in the power of an active and clever man to return the Board from whom he may immediately obtain an appointment and authority, for the exercise of which he is only responsible to those whom he returns."

To this statement we must add for our present purpose—

1. That the Board are empowered to appoint and remove their clerk and other officers—*v.* sec. 19 of 11 and 12 Vic., c. 92.

2. That licences are directed to be sold by licensed Stamp Distributors, or by such persons as the Board of Conservators may appoint—sec. 30.

3. That accounts of sales of licences are to be furnished, setting forth the sums received for each engine, the name and residence of the purchaser, and the district and electoral division for which such licence has been obtained—sec. 32.

4. That security is required for any officer having the care or custody of money; and that such officer is further required to enter and keep a true account of all the moneys to be received by virtue of the Act, and of the application of the same—sec. 33.

5. That before any engine is used it must be

* The election is made triennial by 13 and 14 Vic., c. 88, s. 2.

duly licensed, sec. 8, and a penalty for non-observance of this requirement is imposed by sec. 22.

The Limerick district comprises six electoral divisions, A and B being tidal, and C, D, E, F fresh-water divisions. Of the elected Conservators the tidal divisions, respectively, return six, and the fresh-water divisions each, three. Prior to the Act of the 28th July, 1863, there was but one ex-officio Conservator; subsequent to that Act, by the admission to the Board of all Magistrates paying licence duty, and being owners of land abutting on the rivers or lakes in the district, that number has been greatly increased.

We stated in our Report that the persons interested in the lower portion of the Shannon constituted the majority of the Board. As shown above, the number of elected Conservators is the same in the tidal as in the fresh-water divisions, and the number of ex-officio Conservators would probably now be greater in the latter than in the former; but the district is, to a great extent, managed by the Clerk and the Finance Committee; that Finance Committee is composed almost exclusively of persons residing in or near Limerick; and of the elected Conservators who are members of it, eight out of ten represent the tidal divisions. It was sought to be shown that some of these Conservators being rod-fishermen, were more interested in the fresh waters than in the tidal; but the fact that they were returned by the netting interests sufficiently refutes the assumption. Again, a most unwarrantable interference, to which we shall presently recur, in the elections for the years 1860 and 1863 in Electoral Division D, by a bailiff holding eel-weirs in Division E, was justified on the ground of the preponderance at the Board of the tidal over the fresh-water interest. A reference to the Minute Book of the Board fully confirms the estimate formed by the bailiff of the strength of the respective parties. It shows that, from the appointment of the first Board, under the 11th and 12th Vic., c. 92, the tidal interest has had the ascendancy. For instance, we find, in 1854, a proposed resolution to raise the licence duty on bag and fly nets from £2 10*s.* to £5 successfully met by an amendment, that "the increased amount of duty proposed, amounts to a prohibition of the present mode of fishing on the Lower Shannon." The licence on the former is now fixed by Act of Parliament at £10, and on the latter at £30. We even find resolutions passed in favour of the same interest which authorize, in some cases, a practice prohibited by law, and usurp, in others, the prerogative of the Crown. In 1855, it was proposed, as a resolution, that the Clerk should be directed to prosecute every person who should use any engine on which the licence duty had not been paid; but an amendment was carried, "that the Clerk be allowed to recover the licences as heretofore;" in other words, to allow stake weirs and fixed nets to be fished without payment of duty until May 1, and such was the rule observed until 1863.

The same book records orders given by the Board to discontinue prosecutions against stake-weir owners, or against the snap-net fishermen whose licences are taken out in tidal Division B; and an entry in it shows that on June 16, 1863, a letter from the Magistrates at Knock, in Clonderalaw Bay, was read, to the effect, that Daniel Molony (a Conservator) had been convicted for a breach of weekly close time; and on the ground that the offence had been only an excess of about fifteen minutes, a resolution was passed, "that the penalties be remitted, and the Clerk be directed not to enforce them."

The Clerk is appointed annually by the Board, and his salary is £150 per annum.

The Distributor of Licences is a separate officer, giving the security required and receiving the per-centage allowed by the Act. It has become however a practice in this district for the Clerk to obtain from the Distributor blank licence-books, apparently to any amount he might demand, to fill up the licences either as he received applications for them, or more commonly at some subsequent time, and to pay in the money sent him, sometimes in round, sometimes in exact sums to the Distributor and Treasurer's Office. These books are printed in such a form as to show when filled up, to whom the licences have been issued, and the licences for each Electoral Division bear upon them the letter by which the division is known.

It was proved that in 1862 the Clerk had thus sent out licences to the amount of £242; in 1863, to the amount of £915; and in 1864, to the amount of £321.

It was proved that in the beginning of July, 1863, there was an election of Conservators, and that the canvass was unusually close, in consequence, as stated by the Clerk, of another candidate for his office seeking to dispossess him.

It was proved by a Parliamentary return prepared by the Clerk that in that year he had received up to May 26, £691 for licences not issued. In two cases the licences to considerable amounts were not filled up at the request of the persons applying for them, and that request was made in consequence of the forthcoming election, so as to enable the licence-holders to take out the licences in whatever Electoral Division would best secure the interests of their party. The Clerk stated that he would not have delayed the issue of any of the licences after receiving the money unless he had orders so to do from the parties applying or that he had not the information he required to fill up the forms. But it was also shown that the practice of not issuing the licences on receipt of the money for the same was common, and that by the sanction of the Board the licences for fixed engines were not required to be taken out until May 1 of each year.

It was also proved that it was the common practice for owners of engines fishing in one Electoral Division to take out the licences for those engines in another, with the object of influencing the elections; but to what extent this practice was resorted to in the election for 1863 we were unable to ascertain.

The Clerk could assign no reason why licences to such an unusual amount as £915 passed through his hands during that year; he declared that he was unable to remember the Electoral Division for which he issued any one of those licences, and the blocks of the licence-books, which would have furnished the information, were destroyed. On this point we made careful inquiry.

It appeared that it was the custom yearly for the Finance Committee of the Board to destroy all the blocks when the Distributor's accounts were passed, unless, as often happened, the Clerk took the blocks away. It was proved that the blocks of 1863 were returned by the Clerk to the Distributor's Office, and that, departing from the usual practice, these blocks were retained until May, 1865, and were then destroyed in that office,

without the sanction of the Finance Committee. The Clerk asserted that they were destroyed by the Distributor's Clerk, against his wishes and injunction; the Distributor's Clerk stated that on one occasion the Clerk of the Board requested him to retain them for the present, and that two months afterwards he burnt them, with the Clerk's knowledge and consent; this latter officer then declared that he yielded to the importunity of the Distributor's Clerk, who represented the great inconvenience that retaining them occasioned; and the Distributor's Clerk being recalled, denied the importunity, though he asserted the inconvenience, and the blocks of the books of another year of similar numbers being produced, showed a bundle of about 12 inches long by 5 in thickness.

It was further proved that a new Board was formed under the Act of 1863; that the elections took place in October, 1864; that in this district an active canvass preceded them. In the summer of 1864 two owners of fixed nets situated in Division A wrote to the Clerk for licences. In July the Clerk issued the licences, and amongst them were some for B Division, sent, as the Clerk stated, because he had no more A licences printed; but it was also shown that very shortly before this election the head water bailiff of the Board, by the directions of the Clerk, canvassed the persons holding these B licences for a personal friend of the Clerk's, obtained six votes, and sent them to the Clerk; that in the same year the water bailiffs, who are under the immediate control of the Clerk, were, with his knowledge, directed by the same candidate, when on their beats, to canvass and obtain votes for him; and that a water bailiff seconded the nomination of the six Conservators who were returned for letter B Division. But the Clerk solemnly swore that he never interfered in any manner in an election; and on being asked to reconcile his directions given to the head water bailiff with such a statement, said that the two persons from whom the bailiff obtained, by his direction, the licences for his friend, were his personal enemies; that the votes, therefore, were not given on his solicitation, but on that of the bailiff; and that further, he only acted in his private capacity, and under the direction of a Conservator, which office his friend then filled. It was further proved that this candidate obtained the information that the votes for the engines in A could be polled in B, from the Clerk, who stated that he was bound to give any information in his power to a Conservator.

To such an extent has the practice prevailed of polling in one division the votes derived from engines fished in another, that in 1860 and 1863 the head bailiff of Division E returned, by means of the licences for eel weirs he fished in that division, the three Conservators for the Fergus river, situated in Division D, against the protest of the legitimate voters, who were thus left entirely unrepresented; and at the election of 1864 for Electoral Division E, votes were brought from all parts of the Shannon. It is right to add, that this practice, objectionable as it is, is not in contravention of the letter of the Act, and that the Clerk protested that it prevailed against his wishes and desire; although it is difficult to reconcile such a statement with the fact that he voluntarily aided persons to resort to it to such an extent as we have shown; for it must be remembered that it was not his duty to issue licences at all, and that in fact he constituted himself a Distributor, a position he had no power or authority to assume.

It was further proved that at times licenc already issued had been cancelled by the Cle and that others had been given in their place f a different division. Such an act is entirely u authorized, and might lead to very grave abus but the Clerk stated that he exercised his discr tion, and would not have cancelled a licence there was any reason to think his doing so wou be abused. Such an assumption of authori seems to us to make the practice even still mo objectionable. It was also proved that the votes the Lax weir fishery, which should, if the inte tion of the Act were complied with, not be mo than four in number, have been multiplied in th manner described in our Report to upwards more than ninety.

Such are the principal facts connected with th management of elections and with the issue licences in this district. It might be sufficient t state simply that they show a constant disregar of the five different requirements already enume rated of 11 and 12 Vic., cap. 92, but we conside it our duty to comment rather more fully upo them.

1. The practice which has prevailed in th Limerick District of allowing fixed engines to b fished before they have been duly licensed is di rectly contrary to the provisions of the 8 and 2 secs. of 11 and 12 Vic., cap. 92.

The practice was also objectionable, becaus the district fund lost the interest on the money *e.g.*, in 1862 the amount of licence duty paid o fixed engines was £650. That sum was not ex pected to be paid until May 1, the interest on i was therefore lost to the district from such time as the engines commenced fishing, and the season opens on February 12. But such a loss was trifling compared with the abuse in other ways that the practice permitted. It became almost impossible for the Conservators and Bailiffs to know what engines were or were not licensed. This difficulty was felt and brought before the Board by some of the members; but the system was continued, whereby two different fixed nets were sometimes used under the same licence. In one instance the party so using two nets was summoned for using one without licence, and the Magistrates refused to convict as the prosecutor could not swear which of the two nets was *not* licensed; and it has been proved to us that on one occasion two distinct nets were so used even by a Conservator. It was stated that it would have been impossible to collect the licences for the fixed engines in any other manner, because the stake-weir owners would have put in pauper tenants whom it was not worth while to prosecute. The answer to such an excuse is, in the first place, that the practice is illegal, and therefore should not have been adopted by those to whom the enforcement of the law was intrusted. But beyond this, whether tenanted by a pauper or not, there could not have been the smallest difficulty in enforcing the penalties imposed upon unlicensed weirs, for those penalties include the forfeiture of the engine illegally used, so that even if the pauper could not pay, the illegal engine could be seized.

2. The Clerk by practically assuming the office of Distributor acted illegally. The 30th section of the 11 and 12 Vic., cap. 92, enacts that licences shall be sold by persons appointed by the Board —sufficient security being taken from them. The Clerk was not so appointed, and though at one time, in 1863, he had as much as £536, derived

from licences, in his possession, he had not given security for any portion of that sum. The Distributor had, it may be said, given security; but the Act requires that security should be taken from any person having the custody of money received under it.

3. The Clerk, in not issuing the licence on the receipt of the money, and keeping such an account of the moneys received as the Act directs, acted with grave indiscretion and in contravention of the Act of Parliament.

The 32nd sec. of 11 and 12 Vic., c. 92, declares that the Distributor "shall furnish to the said Commissioners or Board of Conservators, as the case may be, an account of the sales monthly, or so often as they may require, and shall set forth in such accounts the sums received for licences for each particular engine, net, instrument, or device, the names and residences of the persons who shall have purchased such licences, and the district and electoral division of such district, for which such licences have been obtained."

In the office of the Distributor a book was kept, giving such information with respect to the licences issued from his office; but the amount so issued in 1863 was only £138 3*s.* 4*d.*, out of a total issued to the value of £1,339. As to the remainder no information could be given, and it has been shown that the Clerk was accountable for the sum of £915 in that year.

Even though a similar book had not been kept by the Clerk, if the licences had been sent out by him on receipt of the money, the blocks would have shown the exact sums received. If an applicant for a licence did not receive his licence by return of post, he would have written for the licence, which was also his receipt; but the acknowledgment of the Clerk to him of the money without the licence affords no evidence that the licence was ever subsequently issued. If the licence were not issued, no evidence whatever exists to show the Board that their funds have not been appropriated. Nothing short of proving that money had been sent by different persons in excess of that accounted for would enable the Conservators to detect a fraud, and to do this would be almost impossible.

Further, the practice enabled different persons to exercise an influence over the elections of a confessedly most objectionable character, and it places a power of returning the Conservators, from whom he derives his appointment, in the hands of the Clerk, the mere possession of which, in our opinion, unfits him for his office. We cannot help adding the evidence given by the Clerk of the Limerick Board in support of our opinion on this matter. His last observations, at the inquiry, were "that he wished to call our attention to the temptation to do wrong which persons in his position were exposed to owing to the system under which they held office;" and he added that it was most difficult for a man in his place to do his duty with the prospect of a dismissal from year to year by the Board hanging over his head, and he desired to represent to us the necessity of making the officers of a Board independent of it, and subject only to some higher authority.

4. The power assumed by the Clerk of cancelling licences and issuing others in their place, is totally unauthorized, and would enable him not only to influence but almost to control the elections.

We now pass to the subject of the alleged excessive poaching. The 24th sec. of 26 & 27 Vic., c. 114, prohibits the use of any net, except a landing net for the capture of salmon or trout, in the fresh-water portion of any river between 8, P.M., and 6, A.M., except so far as the same may have been heretofore used within the limits of a several fishery next above the tidal flow, and held under a grant or charter, or by immemorial usage. Acting on the information we had received we had reported—1st. That this section of the Act was not enforced; that from the tidal boundary up to Lough Derg fishing by night was carried on in the most open manner, and that no prosecution was instituted till late in May. That

"On the 24th of May some men at Killaloe were at last fined, but up to the close of the season an exemption in favour of '*the* several fishery next above the tidal flow' was construed to include an extent of fresh water just above Limerick, held under separate titles by several different persons."

In reply to this statement, the Clerk asserted in his report to the Conservators—First, That he took effectual means to suppress netting between the prohibited hours at Killaloe and Castleconnell, and in those portions of the river between the latter place and the tideway, where it was manifest the privilege could not be legally exercised; secondly, he quotes the following opinion of the then Solicitor-General given to the query, which we also insert, in defence of the course he adopted :—

"Eighthly—Where the net fishing of each side of the river, from the bank to the middle of the stream, is claimed by a different person, and the fishery of one side extends nearer to the tidal flow than that of the other, does the exception in said last-mentioned 24th section (assuming that both fisheries are several fisheries) apply to both, or only to the side that reaches to the tideway; and is the other side closed, as regards netting between eight o'clock in the evening and six o'clock in the morning?

"To this query the following reply was given :—

"I think in the case put the exception would apply to both fisheries."

And thirdly, he quotes a resolution of the Board to the following effect :—

"Having very carefully considered the paragraph, in the Chief Commissioner's letter, relating to fishing with nets between the hours of eight o'clock in the evening and six o'clock in the morning, we have come to the conclusion, as regards the fishery immediately above the tidal flow, that so many difficulties stand in the way of prosecutions under the 24th section of the last Act, that the state of our finances would not warrant us in taking action in the matter at present."

The facts of the case were shown to be as follow. On the south side of the Shannon, the river to the centre of the stream, from the tidal boundary to the Castleconnell water, is claimed by a member of the Board of Conservators as a several fishery. On the north side, immediately above the tidal boundary, is a commonage of half to three-quarters of a mile in extent, succeeded by a fishery claimed to be a several one by a gentleman named Arthur, succeeded by a commonage, above which again is a several fishery. These different fisheries are fished with nets by the Limerick snap-net men—a body of above forty in number, who take out their licences in Division B, and share the proceeds of each day's fishing.

The Clerk stated that he gave orders to the bailiffs to prevent anyone fishing at night in the fisheries above that on the north side, to which a claim is made by Mr. Arthur. But no prosecution

APPENDIX, No. 19.

was instituted in 1864, nor indeed until late in the season of 1865, although it was proved that the whole of these fisheries, "held under separate titles by several different persons," were openly fished night after night. It was further proved that the bailiffs who were intrusted with the care of this part of the water were two men, one of whom was a snap-net man, and has been this year convicted for illegal fishing in this very portion of the river, at the instance of the Shannon Protection Association. The other bailiff, though summoned, did not appear. It was further proved that the prosecution instituted this year by the Clerk resulted in a dismissal, in consequence of the Magistrates discrediting the evidence produced; and the Clerk relied on this to show the difficulty he would have had in procuring a conviction.

It will be seen by these facts—firstly, that the measures taken to suppress poaching were such as could not be otherwise than ineffectual; secondly, that the opinion of the Solicitor-General does not apply to the case in question; and thirdly, that the resolution of the Board, referring to the several fishery immediately above the tidal flow, was applied in practice by their officer to five distinct properties.

We further reported that—

"In August, and therefore in close season, we were informed that the amount of fishing carried on just below Limerick by a body of men known as the Coonagh fishermen, was so great as seriously to threaten the breeding stock of the river. A representation to the Board produced an answer from the Clerk* to the effect that he had only one boat, with two men, to look after some twenty miles of river at this point, and that the poachers were very numerous, and so determined and skilful that he would require as many bailiffs as there were fishermen to check it—to collect such a force was impossible, as he could not hire extra men at 15*s.* a week."

To this statement the Clerk replied at length. His answer is in substance, that he did all in his power to check the illegal fishing complained of by endeavouring to procure bailiffs, as described, and that he obtained the aid of the lax-weir fishery proprietors; and he writes, on the 27th February:—"Is it to be credited that the owner of that property, with the ample resources he is known to possess, was so unmindful of his rights, and so neglectful of his interests, as to permit it to be plundered by trespassers to the threatened injury of the breeding stock? I can answer that he was not."

The fact that the illegal fishing was carried on in the manner we have described has not been denied. The exertions made by the Clerk to suppress it amounted to the employment of two men, with one boat, to watch a portion of the river exceeding twenty miles in length; and with regard to his expressed confidence in the vigilance of the bailiffs employed by the lax-weir proprietors, we scarcely know what opinion to express, inasmuch as he states to us in another letter, that having reason to suspect that all was not right between some of these (Coonagh) fishermen and the lax-weir bailiffs, he directed the bailiffs of the Board to watch them, and the result was that the lax-weir bailiffs were seen receiving fish from the men poaching. In the same letter he also asserts that these men were supplied by one of the lax-weir proprietors, or his men, with bo and nets, wherewith to fish in the close seaso that the lax-weir bailiffs had received directio to pass the Coonagh men by when illegally fi ing; and he adds, that "he can truly say th when these facts were revealed, his astonishme was unbounded;" but he also shows that he w acquainted with them long before his letter February 27th was written.

Lastly, we called attention to the illegal ba net fishing in the Lower Shannon in the followi words:—

"Lower down the estuary there is reason to beli that bag-nets, which are here altogether illegal, ha been systematically used throughout the season, w the knowledge, as is asserted to us, of some of water-bailiffs, and there is proof that the nets ha been largely fished during the close season. In Ju the use of some bag-nets had been reported, and was seized by the bailiffs. On the 18th August a rep was made by the coast-guard that they had found t bag-nets attached to a stake-weir at Kilmore—a w delivered into their custody after condemnation a pending appeal. We wrote at once to the coast-gua and police authorities to request their assistance, and the Board calling their attention to the matter. Fr that time numerous seizures were made. The coa guard took five nets, the police one, the bailiffs of proprietor of the lax-weir thirteen, and the bailiffs the Board five. In all, no less than twenty-four bag-n have been seized this year in the Shannon estuary."

The Clerk's reply to this paragraph is simi in effect and value to that given in the case the Coonagh men, just stated. He asserts, in report, the difficulties of detection, details t efforts made by the Board, and declares that t five bailiffs employed by the Board, and the by the lax-weir proprietors, were unremitting their exertions. Then he accuses, in letters to the bailiffs of the lax-weir proprietors of collusi with the poachers. He states that they to salmon themselves out of the illegal nets, a declares that in the case of a prosecution institut by him against a stake-weir owner for fishing the weekly close season, they being "his witness evinced the utmost anxiety to defeat it, and s ceeded in so doing, although he never conduct a clearer case." In his report he submits that t seizure of twenty-four bag-nets is conclusive e dence that a vigilant supervision was maintain In the Appendix he states that seventeen of the were seized by the bailiffs, thirteen nets havi been captured by the very men whom he accus in his letter to you and to us of complicity wi the poachers.

In a letter written to us on the 21st Septemb 1864, but printed in the Appendix to his repo published in 1865, and adopted therein, he stat that the bailiffs and the police vied with ea other in the seizure of the nets, and to such extent did this rivalry proceed that it led to serious dispute between them on one occasio when the police had seized a bag-net. This sam circumstance is given in his letter to you, S written upon the publication of his report, as instance of the complicity of the bailiffs with t poachers, and the bailiff is represented as shou ing "police, police," in order to bring the count people round him, and as having rescued the n from the constabulary.

The facts are, as shown at our inquiry by th commander of the coast-guard of the district, th

* The Board, on receipt of our representation, authorized their Clerk to send a reply, and further empower him in future to answer, when he deemed necessary, any letter that might be addressed to them by us.

one bailiff only of the Board was active in the matter, that neither the Board nor their servants ever gave any information to, or asked any assistance from the coast-guard, who were making every exertion in their power to enforce the law; that the fishing was carried on to a scandalous extent, and continues, unfortunately, up to the present hour, though we are glad to believe that efforts are now being made to check it.

We append to this report the complaints that were preferred during the inquiry. The facts we have stated will show how far the material averments they contain were substantiated; whether the interference of the Clerk in the elections of 1863 was carried to the extent alleged, or to what extent there was any interference on his part it is difficult to determine, for there is no proof. The Clerk could remember nothing which would throw any light on the subject, and the means of obtaining the information that we needed, and the Act required should be afforded us, had been destroyed, with his consent, given after he had asked for inquiry. As to whether the Board have been as active in the suppression of illegal fishing as their means would allow, we will pronounce no opinion; but it is not to be wondered at that grave suspicion should have been entertained and complaints advanced, when it is remembered that excessive poaching occurred in the portion of the river fished by the men who returned the working majority of the Board, by whom the Clerk is appointed, and that among that majority, as shown by the returns furnished us in accordance with the 5 and 6 Vic., c. 106, s. 107, were men who had been convicted over and over again for breaches of the fishery laws. As stated by that officer, his place is one of peculiar temptation; and if he and the Board have been unjustly accused, they can only blame themselves for the carelessness and irregularity with which they have administered a public fund intrusted to their charge. In some respects the Acts of Parliament were infringed, in much their plain meaning was neglected, and practices were suffered to prevail that were most objectionable and even illegal, by means of which the Clerk of the Board might have embezzled the funds with scarcely a chance of detection, and would have been enabled to exercise such an influence over the elections as would insure the return of a majority from whom he might be certain of retaining his appointment.

It will show at once how false is the position in which the Board and their Clerk have been placed by their non-observance of the requirements of the Act passed for their constitution and guidance, when we add, that although we have not the slightest reason to suppose that the funds have been otherwise than honestly expended we have not the proofs requisite to enable us to state that such is the case. And, in conclusion, we repeat the last passage on this head of our Annual Report for 1864, and say that—

"The position is full of anomaly, and open to suspicion, which is occupied by the officer of a Board who has the power (even though it be unused) of influencing the return of its members, and whose duty it is to enforce the law against those from whom he derives his salary and authority. However scrupulous and zealous his conduct may really be, fishermen, who are often suspicious and constantly discontented, will not give him the credit that may be his due; and we need scarcely say that the prevalence or even the existence of a belief that the law is enforced with different degrees of severity in different portions of a district, acts most injuriously upon the fisheries within it."

We are, Sir,

Your obedient servants,

FREDERICK EDEN.
WALLACE HOUSTOUN.
R. J. LANE.

7th September, 1865.

APPENDIX, No. 19.

APPENDIX.

COMPLAINTS respecting the LIMERICK FISHERY made to the SPECIAL COMMISSIONERS for IRISH FISHERIES for Investigation at INQUIRY held in LIMERICK, 9th and 10th AUGUST, 1865.

1. That the Clerk of the Board in 1863 received over £600 from the weir owners residing in Letter A, for licences which were not issued till a late period of the fishing season, until the approach of the election, which took place in July.

2. That the greater portion of these licences were taken out in Letter B division, and were subsequently used at the election.

3. That in 1860, 1863, John Enright, water bailiff, proceeded to Ennis (Letter D division); that he there at the election proposed three persons as Conservators, whose return he secured by polling eel-net licences for weirs situated on E division, which was done by the Clerk's orders; and upon both occasions gentlemen residing in Ennis indignantly protested against the proceedings.

4. That in 1864 a number of licences for Letter E were sold to parties using engines and residing in Letter F division, which were subsequently used at the election for Letter E.

5. That the Clerk canvassed in person for proxies for Mr. Mayne; that he supplied Mr. Mayne and others with the names of persons who had got licences for Letter E, residing in other electoral divisions.

6. That forty licences were taken out in Letter B division within one fortnight before the election in 1864, which licences are believed to have been taken out by the Clerk, or for him, and with his knowledge and sanction.

7. That in 1864 Thomas Clancy (water bailiff) was employed during the summer in canvassing for and getting licences, with Clerk's knowledge and sanction.

8. That at the election for Letter B division in 1864, Thomas Clancy, water bailiff, seconded the nomination of the six Conservators who were returned.

9. That in 1864 Messrs. Pegum and M'Auliffe, residing in Letter A division, and using fishing engines therein, wrote to the Clerk for licences, who sent them licences for Letter B division, which were subsequently written for by Mr. W. L. Joynt, and used at the election.

10. That Mr. William Henn Mayne, being an elected Conservator for Letter E division, sold and distributed licences for that division in 1864, contrary to the provisions contained in sections 19 & 30 of 11 & 12 Vic., c. 92. *

* It is right to say that Mr. Mayne, although he sold licences without the authority required by the Act, did not accept any emolument for so doing.

Appendix, No. 20.

Appendix No. 20.

Circular as to the Injury caused by and Illegality of Flax Steeping.

Fisheries.

Flax Steeping—Manure.

The practice of allowing flax water to escape being contrary to law, highly injurious to the fisheries, and a wilful waste of a very valuable manure, The Special Commissioners print the following extracts from Professor Kane's "Industrial Resources of Ireland" for the information of all parties:—

"When the flax is steeped, the water acquires a darker colour, a disagreeable odour, and it is well known becomes poisonous to fish. This arises from the solution of the glutinous material which had cemented together the pure fibres . . . It is thus seen that the steep water dissolves out a great quantity of nitrogen and of the inorganic materials of the stem; in fact, *that it removes from the plant almost everything that the plant removes from the soil.* . . . The steep-water thus dissolves especially the alkaline ingredients and the phosphates of the plant, and hence leaves the rotted stems in a condition of almost pure ligneous matter. . . . Now the agriculturist should steadily bear in mind that the fibre which he sells to the flax-spinner has taken nothing from the soil; all the crop took out of the soil he has still in the steep-water, and in the chaff of the scutched flax; and if, after suitable decomposition, these be returned to the land, the fertility of the latter will be restored, and thus materials, at present utterly neglected, and even a source of inconvenience, may be converted into most valuable manure.

"That the water in which flax has been steeped possesses powerful influence as a manure, has been observed by various persons; thus, round the edges of bog-holes used for steeping, a luxuriant and tender herbage often arises in vivid contrast to the surrounding barren peat. Various agricultural authorities have noticed its beneficial effects when experimentally used; but I shall only quote, in order to show the attention it deserves, the following notice by Mr. Wakefield. 'The water in which flax has been immersed, is in Ireland, entirely neglected; but Mr. Billingsby mentions it as an excellent manure, and no country in the world, perhaps, affords better opportunities of employing it than Ireland. I made frequent inquiries about it, but could never hear of a single instance of its being used. The Author of the Survey of Somersetshire (Mr. Billingsby) says, "It is observable that land, on which retted flax is spread to prepare it for hackling, is greatly improved thereby; and if it be spread on a coarse sour pasture, the herbage will be totally changed and the best sort of grasses will make their appearance. Having myself cultivated flax on a large scale, and observing the almost instantaneous effect produced by the water in which the flax was immersed, I was induced, some years ago, to apply it to some pasture land by means of watering carts similar to those used near London for watering the roads. The effect was astonishing, and advanced the land in value 10*s.* per acre."'

"The chaff remaining after the scutching might also be formed into manure, and has actually been found of as much value as its composition would indicate: it appears also fitted to be used as food for cattle. This has been fully verified by Mr. Nevin and Mr. Charley in the North of Ireland; and thus, in fact, the farmer sending to market only the fibre of the flax, which derives nothing from the soil, has the opportunity of economizing, in other and highly remunerating modes, all the residual materials. . . . Its nutritive quality cannot be material, but, mixed with the water of the flax-steep, it should complete the restoration, to the soil, of the constituents of the growing flax."

An erroneous opinion having existed in some places, that *running water* was preferable for steeping, the following extract from the instructions given by the Flax Society may serve to remove the prejudice.

Watering of Flax

This should be done in soft water, and to ensure this, let the steep holes be filled some weeks before required, that the sun and air may soften and warm it. They should be dug from six to twelve feet, by about twice the width for the length, and to be filled from running water, if possible; and, after the flax is put in, to carefully exclude any addition, except in case of leakage, and then to add most cautiously. On the Continent the same pools are used year after year.

☞ Note.—The 80th Section of the 5th & 6th Vic., c. 106, imposes a penalty of Ten Pounds on any person allowing any deleterious or poisonous liquid to flow into any river or lake; and this law will be strictly enforced.

February, 1864.

Dublin: Printed by Alexander Thom, 87 and 88, Abbey-street,
For Her Majesty's Stationery Office.

REPORT

OF THE

DEEP SEA AND COAST

FISHERY COMMISSIONERS,

IRELAND,

FOR

1865,

TO HIS EXCELLENCY THE LORD LIEUTENANT,

PURSUANT TO THE ACT 5TH AND 6TH VICTORIA, CHAPTER 106.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1866.

CONTENTS.

Pa

REPORT, ...

APPENDIX :—

REPORT OF INSPECTING COMMISSIONER OF FISHERIES FOR 1865, ...

APPENDIX, No. 1.—State of the Registry of Fishing Vessels on the Coast of Ireland to 1st January, 1866, pursuant to the 5th and 6th Vic., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865, ... 1

„ No. 2.—Quantity of Fish conveyed by Railways between 1859 and 1866, . . . 2

„ „ Quantity of Fish, with Rates of Carriage, conveyed during the year ending the 31st December, 1865, by the following Railways:—

Great Southern and Western, ... 2

Dublin and Drogheda, ... 2

Midland Great Western, ... 3

Waterford and Limerick, ... 3

Dublin, Wicklow, and Wexford, ... 3

Cork and Bandon, ... 3

„ No. 3.—Abstract of By-Laws, Orders, &c., made by the Commissioners to 31st December, 1865, ... 3

„ No. 4.—Abstract of Returns of Herring Fishery at Dunmore, East, . . . 3

„ „ Howth, ... 3

„ „ Ardglass, ... 3

„ No. 5.—List of Licences granted by the Commissioners to plant Oyster Beds, to 31st December, 1865, ... 3

„ No. 6.—Communications relative to the Cultivation of Licensed Oyster Beds, . . 3

„ No. 7.—Special Reports as to the Fisheries of Arklow, ... 42

„ „ Howth, ... 42

„ „ Ring and Dungarvan, ... 43

„ No. 8.—Correspondence, &c., relative to New Legislation for the Oyster Fisheries, . . 44

„ No. 9.—Statement as to alleged Arrear of Funds for the promotion of the Fisheries, . 50

„ No. 10.—Letter from J. Redmond Barry, Esq., ... 53

„ No. 11.—Notes on the Fisheries of Norway, ... 54

REPORT

OF THE

DEEP SEA AND COAST FISHERY COMMISSIONERS, IRELAND,

FOR THE YEAR 1865.

TO HIS EXCELLENCY JOHN EARL OF KIMBERLEY,

LORD LIEUTENANT-GENERAL AND GENERAL GOVERNOR OF IRELAND.

MAY IT PLEASE YOUR EXCELLENCY,

WE, the Commissioners for Administering the Laws relating to the Deep Sea and Coast Fisheries in Ireland, beg to submit this our Report for the year 1865.

During the past year the condition and progress of these fisheries continue to exhibit, on the whole, a manifest and decided improvement as compared with their state a few years back.

On the Eastern Coast the take of herrings has been satisfactory, although somewhat less than in the preceding year, owing apparently to the fish not having approached the shores until a somewhat later period; and, encouraged by the success of the past, active steps are being taken by the previously established boat-owners and fishermen, and also in the formation of new companies, for the vigorous prosecution of this fishery.

On the South Coast also the off-shore fishing has been encouraging. That of the mackerel, which has sprung up into vigour within the last few years, has been prosecuted with energy and success; and a large fleet of fine and well-found vessels from various quarters now habitually come upon the coast—principally off the port of Kinsale, which is their market harbour—to share the rich harvest with the native fishermen, whose boats are in great progress of improvement, both in numbers and condition.

On the Western and Northern Coast we regret to say that little, if any, improvement is apparent. The shoals of fish which have visited the other coasts either have not appeared in these more stormy seas, or, it may be, have not been discovered, owing to the poor condition and equipment of the boats, and to their not being of a size to enable them to proceed far enough to sea. In a few localities the depressed and failing state of the fisheries may, to some extent, be attributed to want of perseverance and enterprise; but where this exists, it may be traced to the loss by emigration of the more able men, the poverty and almost helplessness of those left behind, the ever-changeful weather, the wild and dangerous shores along which the fisherman's occupation lies, and also, notwithstanding the extension of railways into the west, to the want of an immediate and remunerative market.

We have the satisfaction of remarking that during the past year those much-esteemed fish, the haddock and whiting, which for a very long time had scarcely been seen on the coast, have re-appeared—the former in only comparatively small numbers as yet, but the latter in considerable quantities, though of inferior size.

We regret to be unable to represent the oyster fisheries, at least so far as they are of common right to the public, as being in a prosperous or progressive condition. This does not arise from a decline consequent on natural causes, but from the fact that the greatly increased demand and enhanced price have stimulated dredging to a degree which the beds are unable to bear. The diminished take of oysters, even on the extensive beds off Arklow, as also on the Wexford coast, making due allowance for unfavourable weather, is an exemplification of this; and many of the smaller public beds elsewhere have been completely exhausted. To remedy this evil, in some measure, we have extended the close season on the south-east coast, with a full admission by the fishermen themselves of the necessity of the step; and in order to create sources whence the public beds might be

re-stocked, we have encouraged the formation of private layings by granting licences to individuals upon their application, and where the public rights were found on full inquiry to admit of such concessions. From these measures we hope to see the general supply at least not further diminished.

The same peaceable demeanour which has hitherto characterized the fishermen has continued to be maintained notwithstanding the many trials to which they are exposed and where the abundance of fish has attracted the fishermen from the Manx, the Cornish and the Scottish ports, the native fishermen have competed with them in friendly and successful rivalry.

In the Appendix will be found the Report of the Inspecting Commissioner; the statements of the Coast Guard Officers relative to the general condition and prospects of the fisheries and the number and state of the boats, &c., within their respective districts; also returns of the weekly take of herrings at Howth, Ardglass, and Dunmore, and of the quantities of fish carried by the different railways during the past year, and for the purposes of comparison the quantity conveyed during the last six years.

An abstract of the by-laws which have from time to time been made by us for the general regulation of the fisheries is added; a list is given of the licences to plant oyster beds which have been granted up to the end of last year, with the extent of each bed; and copies are annexed of the statements which have been received from several of the parties to whom licences had previously been granted, of the results of their efforts at cultivation. We also add an abstract of the report of the officer (Mr. Brophy) whom we appointed to attend, on our behalf, the exhibition of objects connected with fisheries held at Bergen, in Norway, in August last, which we trust will be found to possess considerable interest.

In our reports for 1863 and 1864 we adverted to the circumstance of our having thought it proper to hold over our decision on certain cases before us in reference to Trawling, pending the inquiry, in regard to the Sea Coast Fisheries of the United Kingdom, by the Royal Commissioners appointed in 1863. We have perused the report of that Commission lately published; but we still feel it inexpedient to deal with the cases referred to, awaiting the decision of the Government and the Legislature, with respect to the recommendations made in that report. The views of these Commissioners, in regard to the propriety of the removal of all restrictions on Trawling, however, we feel it our duty to take this opportunity of expressing our dissent from—so far, at least, as relates to Ireland. The reports of former Commissions of Inquiry—and we more especially allude to the very full and comprehensive report of 1835—and all our own experience and investigations have led us to the conclusion that, within certain limits, Trawling is injurious to the interests of the fisheries at large; and in this opinion we are supported by all persons in this country, scientific as well as practical men, who have disinterestedly directed their attention to the subject. Fish of all kinds, it is well known, approach the shores for the deposition of their spawn, each species at its appointed season; and there can scarcely be a doubt, we think, as to the advisability of their being left undisturbed during that period, as well as of protecting the young and immature fish, which remain for a certain time on or near the spawning beds. The position of these beds, it is true, is not very clearly known. Some consider, and no doubt with reason, that they lie in the sheltered spaces between the ledges of rock, and on foul ground within the bays, where the trawl cannot be worked; but it appears equally certain that they are found to be formed on the clear and open sand and gravel banks along the coast, within certain soundings. If it were practicable we would recommend that the fishing should be closed on these beds during the spawning season; but as this is clearly impossible, owing to the fact of the seasons for depositing their spawn, by the different species, overlapping each other, we think that the most expedient course is, to prohibit, within the comparatively narrow limits to which the reasoning applies, and, at least, for such portion of the year as we are inclined to think would be sufficient, that mode of fishing—namely, trawling—which, from its nature, is evidently the most calculated to injure the breeding and immature fish. With regard to trawling in the deeper waters, we entirely concur in the views of the Commissioners as to the impolicy of interfering in any way with the operations of the fishermen.

In reference to the total abolition of a close season for the Oyster Fisheries, we feel called upon to state that our views are also at variance with those of the Royal Commissioners. For the reasons hereinbefore given, and from the knowledge which our experience affords, we are of opinion that, to remove all restrictions, and to leave the banks open to dredging all the year round, would be attended with very disastrous consequences; and though it may be possible that the evil would, in process of time, remedy itself, by a total cessation from dredging when exhaustion was produced, and by subsequent recovery, yet, during the period of exhaustion and recovery much deprivation and misery would be

inevitably entailed on the fishermen to whom these fisheries now afford a fair livelihood. But, while retaining the opinion that it is expedient, not only to preserve the close season for oysters as now established, but also the power to alter it by by-law, as occasion may require, we at the same time think it most desirable that the course recommended by the Royal Commissioners for the encouragement and protection of private beds, should receive the sanction of the Legislature. The steps suggested for that object as proper to be taken in each case are precisely those which we have hitherto followed—though not required to do so by the existing laws—the only thing supplemented to the course adopted by us, being the power of appeal to render valid and conclusive the licences granted. The necessity for such confirmation of title under the licences has been rendered apparent by the doubts which have been thrown on the validity of those hitherto granted, by the opinions expressed by two of the judges presiding at last Spring Assizes at Sligo and Castlebar—the facts connected with which will be found detailed in the Appendix—and which opinions have had the effect of begetting a feeling of insecurity, as to any private property in licensed oyster beds, in those who, on the faith and believed sufficiency of the licences, have expended or proposed to expend money in the cultivation of the ground. This is being attended with very injurious consequences; and we therefore deem it our duty to urge that amended legislation in the direction indicated should take place.

In concluding, we think it right to express our opinions as to the insufficiency of the data now available on which to base any marked alteration in the fishery laws as regards Ireland. Hitherto we have laboured under the disadvantage of having no recognised or duly appointed source from which to obtain reliable information and returns of the quantities of fish taken at the different stations, or means for observing and recording the various important facts connected with the fisheries—such as the periods of appearance, spawning, and retiring of the different kinds of fish—the grounds they frequent, &c., &c.; nor have we, as a rule, been able to place any reliance on the statements made as to the results and effects of different modes of fishing by the persons engaged in them; their opinion being almost invariably biased by prejudice, ignorance, or self interest. To supply this want, and afford the means of dealing satisfactorily with the questions connected with the fisheries which from time to time arise, and to secure sound data on which to consider amendments in the laws and the regulations made under them, we are of opinion that it is desirable that the additional assistance of an Inspector should be afforded, whose duty it would be to continually traverse the coast, inquiring into the state of the fisheries and the causes of their progress or decline, and to aid the fishermen by his advice and counsel; and also that at the principal fishing stations a daily record should be kept by the Coast Guard Officers—with the sanction of the Admiralty, who, it is hoped, would not object to their undertaking this duty for due remuneration—of all circumstances connected with the fisheries; and that this record be forwarded periodically, with a statement of the leading facts and deductions.

We have the honour to be,

Your Excellency's obedient servants,

J. G. M'KERLIE,
W. R. LE FANU, } *Commissioners of Fisheries.*

J. REDMOND BARRY, { *Inspecting Commissioner of Fisheries.*

Office of Public Works, Dublin,
9th June, 1866,
Department of Fisheries.

EDWARD HORNSBY, *Secretary.*

APPENDIX.

APPENDIX.

REPORT OF INSPECTING COMMISSIONER FOR 1865.

Report of Inspecting Commissioner of Fisheries for 1865.

The very copious Appendix which I am enabled to submit through the efficient aid of Mr. Brophy, renders it only necessary for me to call the Board's attention to a few prominent points which will probably be considered deserving of their serious consideration as objects claiming the intervention of the Government with a view to altered legislation.

On no former occasion have I ever approached this important subject with more reluctance or diffidence since my first connexion with the Coast Fisheries of Ireland, in 1818. I have witnessed many and serious revolutions, commencing in the following year with the truly liberal determination of an enlightened statesman* to make the first act of his government of this island a record of his generous principles of justice by extending to her coasts a full participation in those liberal sources of encouragement which had raised the fisheries of his own Scotland even then to a very high point of prosperity. This important branch of our national resources, which had for a long time been wholly disregarded, continued for the ten years following 1819, to enjoy in common with Scotland a course of nurture which produced upon our shores during that short time an unexampled state of prosperity, stimulated the industry of our maritime population, and laid a foundation upon which an invaluable superstructure might have been raised. I am fully prepared for the dissent with which I shall be met, by those who, not without some reason, disapproved what they call "the vicious system of Government bounties;" but I quite admit that they were only justifiable as stimulants to a sinking trade, to rouse the energies of a neglected and greatly distressed population. During those eventful ten years, I have upon many occasions recorded my full conviction of the objections, to bounties, while I was not insensible to the benefits which they produced at starting, and to the effects resulting from the active superintendence of a respectable and well disciplined staff of trained officers; and I never omitted to suggest the substitution of less objectionable and more efficient means of producing improvement than the bounty system.† But this prosperity was short-lived; and in the close of 1835, the complaints from Ireland, arising from the very depressed state of the coast fisheries, were met by the appointment of a Commission, whose inquiries and labours extended to the Isle of Man and the east coast of England, and *within less than a year* a report was produced, which is properly recognised as one of the most important text-books on the subject of the Irish fisheries.

In the following year a Bill, prepared under the direction of the Board of Works conformably with the recommendation in the Report of the Commissioners of Inquiry, was brought into Parliament by Lord Morpeth, and the late Chief Baron Wolfe, then Attorney-General. It was a copious and faithful adoption of the views of the Commissioners, embodied in forty-eight sections. It was read a second time on the 8th May, and committed for Tuesday, the 15th May; but numerous petitions poured in against it, and it was finally deferred for six months on the 23rd July, 1838, without any cause being assigned. Four years more passed away; and in 1842 the much praised and lately much abused 5th statute of Victoria, was passed, which was no more than a Salmon Fishery Bill with a few sections of regulation referring to the sea fisheries, and two officers were appointed for its management under the Board of Works. Under that Act the arrangement, with the aid of the Coast-Guards, for the preservation of order, and the growing facilities for the transit of fish produced considerable effect between 1842 and 1846, when the potato blight, bringing in its train all the horrors of famine and death, produced a paralysis from which we have never recovered.

Coming to the present from this short reference to the past—our numbers progressively decrease: according to the Coast-Guard returns we have lost since last year 311 vessels, 2,232 men, and 794 boys, the numbers being now—8,989 vessels, 35,184 men, and 2,730 boys. Still the aspect of things is generally more cheering. The return of the herrings to our east coast, the success of that fishing at Howth, at Ardglass, and at Dunmore; the proofs established at Kinsale and elsewhere by the success of the mackerel fishing in the deep sea, have wonderfully restored confidence to the diminished numbers that remain. But the spirit of emigration prevails, and I learn with deep regret from the last report of the Rev. Mr. Alcock, of Helvick, on Dungarvan Bay, that even in that spot, of all the south of Ireland where the fishery commonly seemed to be the most prosperous, *because of the industry* of the people, a spirit of emigration was springing up among them. See Ring and Dungarvan fisheries, page 41.

We have great notes of preparation from sundry Joint Stock Companies. The prospectuses of not less than six of them, with capitals varying from £10,000 to £200,000, have been shown to me, and some of them have honoured me by asking advice and information which I have freely given—for those with whom I have corresponded I have had one stereotyped code of suggestions embodied in a very few words, *great caution—great economy.* "Commence on a small scale; increase as you succeed; give to all whom you employ an interest in the success of the undertaking—the seas are wide—the demand increasing, almost unlimited."

Never was there a period more favourable to

* The late Lord Glenelg, then Charles Grant.

† The Eleventh and last Report of the Old Commissioners of Fisheries to the 5th April, 1830, shows in its Appendix, No. 1, an employed fishery population of 75,366. The last words of the report framed by twenty unpaid noblemen and gentlemen of the highest rank "Beg to express their earnest hope that the Irish fisheries may still continue to receive that just and reasonable share of legislative encouragement which had already established the character and prosperity of the British fisheries long before a corresponding encouragement was introduced into Ireland."

enterprise in fisheries than the present. The high price of fleshmeat even here, where we are yet spared by Providence from the sad afflictions of the Cattle Disease, the growing sources of facility of transit by rail and steamer, the experience which seems to have produced a more liberal policy in several Boards of Railway Directors as to charges for conveyance, all combine to encourage a hope that well-conceived and cautiously-organized projects must have a fair chance of success. That degree of individual exertion, which is quite indispensable, must be stimulated, by making a fair and reasonable participation in profits mainly the mode of remunerating all who may be employed. There is no pursuit of industry more precarious, and though our supplies lately have not been adequate to meet the demand, the trade is what is commonly called a very close one. In Ireland it has been peculiarly so, because generally our demand has been for the fresh market. Up to a very recent period we have had scarcely any curing, which is a branch much more certain in yielding a fair and steady return than the fresh market; and if I could only indulge in the hope that our East Coast Herring Fishery would continue to progress as it has done for the last three years, I should be strongly disposed to entertain more favourable opinions on the recent cry for a Branding Establishment. I find, however, that many of those who were, in this country, loudest in their complaints on this score, seem willing to compromise for the extinction of that system in Scotland, as an equivalent for its absence here. In that policy I never can concur. If it be good for Scotland, and that we have fair prospects of fish here, why not have it; and on the occasion of my last visit to Scotland, I was fully convinced that branding *should not be given up*, and that the cry against it was founded on a spirit of monopoly and opposition to the small curers, who would be driven to the necessity of selling their well-cured fish to the great houses whose private brand might be equivalent in the foreign markets to the Crown or official brand. I am quite ready to admit that our Irish aspirants to a portion of the foreign trade are precisely in the same, if not in a worse, condition than the small curers of Scotland; and upon the whole, I am strongly disposed to think that the branding system should not only be continued in Scotland, but extended on equal terms to Ireland. Since the question has been made the subject of a grievance in this country, and most especially since my examination before the Select Committee on the Taxation of Ireland, in June last, I have sought for information on this subject from all possible sources. From the admirable Reports of our Scotch neighbours, I have in this instance, as on all occasions, derived information and instruction. I can scarcely imagine the possibility of entertaining any opinion opposed to the system of branding in Scotland under present circumstances; and surely there can be no doubt of its utility, when the parties most interested are willing to bear all the expense.

In 1855, the Lords Commissioners of the Treasury had before them a Report made to their lordships in 1849, by Mr. J. G. Shaw Lefevre, on the subject of the expenditure, under the superintendence of the Scotch Fishing Board, recommending several modifications, but declaring that he was not prepared to recommend the abolition of the branding of herrings, for which he assigned substantial reasons; notwithstanding which, their lordships determined that the time had arrived when the fishery trade might be entirely thrown open, and the artificial system created by the brand of the Fishery Board abolished, substituting for it the sounder system already adopted with regard to all other articles of trade, including the fisheries of Ireland. In short, it was signified to the Board that it was intended to terminate their existence.

To this communication an immediate answer was given, furnishing in terms the most lucid and satisfactory to any unprejudiced mind, the most convincing arguments to prove the inexpediency of the course proposed; arguments sustained by facts, and by a most elaborate production of statistics. I am indebted to the kindness of a friend for the perusal of this invaluable document, and while I regret that I am not at liberty to give every page of it in this Report, I must take permission to make at least one extract, page 7:—

"The Board observe that their lordships in their minute point at assimilating the fisheries of Scotland to the fisheries of Ireland. The Board have never heard of any remarkable prosperity attending the Irish fisheries, or of their having any Continental export whatsoever.

"They have no access to the returns of the Irish fisheries, which, however, must be easily accessible to their lordships, but they respectfully submit that their lordships appear to have overlooked the important fact that Scotland exports fish from its fisheries to Ireland, and that in 1854 there were exported there upwards of 121,000 barrels of cured herrings, in spite of the known falling off in the number of its population, especially among the poorer classes, who are the great consumers of cured herrings."

It appears that the question remained in abeyance for some years, till 1859, when under the authority of Parliament it was determined to continue the branding system, on the condition of parties requiring the brand paying at the rate of 4*d.* per barrel. Between 1859 and 1863, both years inclusive, the gross produce of this charge amounted to £21,349, or in

	£	s.	d.
1859, . . .	2,644	12	0
1860, . . .	3,865	4	6
1861, . . .	4,422	9	0
1862, . . .	5,801	12	4
1863, . . .	4,618	16	0
	£21,352	13	10

Our Scotch friends, officials and curers, have been unceasing in their complaints of the prohibitory duties, which shut out their herrings from some of the most important markets of the Continent. This was at one time an object of great importance to Ireland, before the establishment of railways from our shores into the interior furnished us with a more than sufficient demand; but if our East Coast Herring Fishery continues to increase, it may be hoped that we also may aspire to seeking for a Continental demand. It appears that the duty in Prussia on import is 3*s.*, while in Austria it is 15*s.*, including transit. In France, though reduced, it is still prohibitory.

I have in several former Reports referred to this subject, which I hope will now attract the attention of the Government.

Coast-Guard Returns.

The only official source of information we have is from the Coast-Guard Department.

The returns from thirty-nine divisions, into which the coast has been divided, will be found in the Appendix, from page 10 to 27. We have used all possible exertions to render the statistics as correct as possible, and have reason to believe that they are so to a more than ordinary degree.

APPENDIX.

Report of Inspecting Commissioner of Fisheries for 1865.

With each return will be found a general summary of the circumstances of the division, varying considerably in several instances.

It will be seen that the whole East and North Coast, from Malin Head down to Waterford, is generally in a more steady and prosperous state than the South and West, where the spirit of emigration chiefly prevails; but in most cases, the officer adds, that full employment at home would soon stop it.

There are but few remarkable exceptions to this observation—at Dingle,—where the officer states some slight improvement; he adds that there is *no emigration*, and he seems to attribute the increase of prosperity to trawling, while in other places trawling is objected to.

The same indomitable spirit of hostility to trawling still prevails at Galway; and notwithstanding that it has been little, if at all, practised in that Bay for nearly three years, the report continues to be "extreme poverty, tendency to emigrate, and decrease of fish."

Since the commencement of this year some preparations have been made for resuming trawling in Galway Bay, but they have been met by some very improper demonstrations from the Claddagh, which have required the interference of the authorities. In that instance, and at Sligo, only has there been any deviation from the general habits of good order on the part of the fishermen.

Railway Returns.

Appendix No. 3, pages 26, 27, and 28, shows the following:—In the Southern and Western an increased traffic in all descriptions of fish, amounting in the aggregate to 256 tons, or nearly one-sixth.

In the Dublin and Drogheda a decrease of 750 tons. This falling-off is attributable to a less abundant take of herrings at Howth than in 1864; and a larger portion of the fish having been sent seaward by steamers and other vessels.

The Dublin, Wicklow, and Wexford traffic has nearly doubled this year. Increase, 1,058 tons.

The Waterford and Limerick has decreased by about one-tenth—13 tons decrease.

The Midland Great Western traffic appears somewhat diminished, because winkles were included in the traffic of 1864, and not included in that of 1865.

Bandon and Kinsale to Cork and Dublin:—

In 1864	836 tons.
In 1865	714 „
Decrease	122 tons.

This decrease in the railway traffic from Kinsale may be more than fully accounted for by the direct shipment last year of a large quantity of the take of mackerel by steamers direct to England. The prospects this year at Kinsale are even better, and the results which are likely to be detailed in the next Report will be most satisfactory. The South of Ireland Fishery Company are at full work, and with a large fleet of Manx, Scotch, and English boats have been most successful.

East and South Coast Herring Fishery.

Howth has not had the whole of the herring fishery this last season. It has extended, as may be seen by the Appendix, No. 5, to Ardglass, to Arklow, and to Dunmore, East. From all those places we have endeavoured to procure accurate returns.

The quantities may be taken in the aggregate at—

Howth, see details, page 32, .	72,913	mease.
Ardglass, „ page 32, .	23,050	do.
Arklow, see Mr. Maher's letter underneath, . . .	30,000	do.
Dunmore, East, . . .	9,000	do.
	134,963	

"Arklow, 8th January, 1866.

"SIR,

"The opinion I mentioned in my communication of the 28th of last November has turned out correct, namely, that no more oysters would be dredged from that date to the close of the year 1865.

"And I am now glad, sir, to inform you that we have had a very successful winter herring fishing this winter. There was nothing like it here during the last sixteen winters, and it is considered that double the quantity of herrings would have been caught but for the very unfavourable state of the weather nearly all through.

"From all the inquiries I have made, as well as from my own observations, I would say the total catch amounted fully to 30,000 mease. Some small quantity sold in the commencement at 20*s.* per mease, but the average price for the whole may be stated at 14*s.*, realizing the sum total of £21,000.

"It was rumoured here, near the close of the fishing, that some of the herrings were spent and bad, but on inquiry I found this rumour had no foundation in truth beyond a very few herrings, and the best proof of this is to be found in the fact that many Arklow men have bought largely this winter.

"The fleet is now preparing to commence oyster-dredging as soon as the weather moderates, and I shall inform you, sir, from time to time on all matters connected with this fishery.

"I am, sir, your obedient servant,

"P. MAHER.

"James Redmond Barry, Esq."

Oyster Fisheries.

Although the Coast-Guard returns do not generally report any considerable decline in the supplies of oysters in most places on the Coast, a scarcity is being felt in those quarters where they most abounded formerly.

Arklow may be considered one of the most important points where the oyster fishery constituted the chief employment of the people, after their return from the herring fishery.

The Board have much reason to feel pleased at having by their order of the 11th of April, 1865, considerably curtailed the open season on the whole Wexford Coast.

The letter of Mr. P. Maher, Harbour Master of Arklow, which will be found at page 40, contains a faithful and reliable statement of the results of the last season's fishing, contrasted with the two preceding years, and will exhibit a very serious decline in the quantity, though the value has been materially increased. The weather this year has been very wild, and has no doubt operated very unfavourably against the dredgers, and the closure of last May should also be allowed for, but being anxious for an accurate return up to a late day, I visited Arklow, and find that between 1st January and 19th March, 1864, the quantity dredged was 13,325 barrels; between 1st January and 19th March, 1865, the quantity dredged was 9,612 barrels; between 1st January and 19th March, 1866, the quantity dredged was 4,250 barrels. It may be seen that this includes no month of May in either year.

I further find that in those several intervals of the three years, the dredgers were prevented by the weather and other causes, which unfortunately sometimes operate on that sand-bound coast, from

working in 1864, for a longer period than 14 days; in 1865, 14 days; and in 1866, 5 days, nearly the whole fleet having been impounded within the harbour by one of those periodical accumulations of sand upon the bar, for nearly a month in that year. In one of Mr. Maher's interesting communications, dated the 6th February, 1866, he states:—

"Owing to the very rough state of the weather this time back, the oyster fishing boats of Arklow only dredged one day as yet in the present year, namely, on the 29th ultimo, on which occasion the total catch was only 200 barrels, and they were bought for London at 10*s.* per barrel. The fishermen report to me that they found the ground very hard, and the oysters scarce, and I regret the latter, at least, is too true. The fishermen, think, however, that after the ground is worked on for some time, they will get more oysters. On the same day of the same month in 1864, the take was 476 barrels, having in six previous days of the same month taken 3,160 barrels; and as to the hardness of the ground, the first day's catch, on the 14th January, 1864, was 532 barrels, or 56 barrels more than the catch of the 29th, 476."

The barrel used at Arklow is about the size of an ordinary herring barrel. It contains about 28 imperial gallons, about 700 oysters of six score of average size will fill it, but of small ones about 1,000.

I must not omit to state that there probably is not in this country a spot, where industry and perseverance have been more exercised in overcoming great difficulties than in this harbour. I have more than once witnessed those sad scenes of complete paralysis, produced by the complete closure of the entrance to their harbour.

I can well remember Arklow thirty years ago. The whole of its trading fleet in 1836 consisted of 4 small schooners, and 10 small smacks. There are now 63 schooners, and 11 smacks, of which the register tonnage is 4,355, and their burthen, 7,336. An equally satisfactory increase in the number and size of fishing vessels has taken place within that period, most particularly in size,—the number may be fairly stated at 148. The larger boats, as a general rule, are not suited for the winter herring fishery, on account of their frequently inaccessible bar, which is more easily approached by the smaller boats; but for the summer fishery, and oyster dredging, the larger boats are preferred. There are new boats now being built, and in a forward state, and preparations are in progress for building more.

Our order of the 11th of April, 1865, curtailing the open time for dredging on the Wexford Coast, produced at first some degree of dissatisfaction, especially at Courtown and Cahore, where the owners of small-sized dredge boats, complained greatly of the closure of September; but I visited the place, and found the people quite accessible to reason, and having been aided by the influence and kind assistance of the proprietor of Cahore, one of the members for Wexford County, I found little difficulty in convincing the people that the change was not without reason. The growing demand for oysters, and their increased value, have produced what our frequent appeals for several years to the coast proprietary have failed to do. Since our last Report, we have in several places inquired into cases of applications for licences in the counties of Mayo, Sligo, Galway, Kerry, Cork, and Louth. In fourteen of those cases we have granted licences for an aggregate area of 1,244—the licences having varied in extent from 18 acres to 190,—the average being about 89 acres. In each of those cases a public meeting was held, notice having been given in the *General Advertiser*, in the local papers, and by hand-bills circulated through the Coast-Guard and Constabulary departments. In every case of opposition, all parties who tendered themselves were examined on oath, their evidence recorded by a short-hand writer, and afterwards submitted for the decision of the Board. One case has been rejected, two cases considerably modified, and five are held over in abeyance for further consideration and explanation.

Five additional cases have been granted, but the licences not having been yet issued, are not brought into the list for 1865. See Appendix, pages 33 and 34.

The average extent of the grants for the last year will be seen to be much under those of former years. In 1858, two licences averaged 195 acres each; in 1860,* 8 cases averaged 323 acres; in 1861, 1 case amounted to 225 acres; in 1862, 3 cases averaged 173 acres; in 1863, 1 case amounted to 489 acres; in 1864, 16 cases averaged 238 acres.†

In 1864 the Board became fully convinced of the inexpediency of making large concessions of ground, seeing that very little had been done where such concessions had been made, and determined to add a condition to the licence in every future case—that unless the bed shall be properly stocked within a specified time proportioned to its extent, and varying from two to seven years, and to the satisfaction of the Commissioners, the licence shall be null and void. Great caution has been further exercised as to the extent of each grant, taking as much care as was practicable to avoid encroaching on ground already productive and resorted to by the public. Exhausted ground favourably circumstanced for replenishment has been freely granted, generally leaving outside it a considerable space of public ground which, in process of time, will become stocked by the overflow of spat from the licensed grounds, securing thereby a prospective equivalent for what might be otherwise thought an unreasonable abstraction from the public rights.

In one of those cases where the grant was to an extent of only 25 acres to the Marquis of Sligo, in Clew Bay (marked 52 in Schedule), and granted on the 2nd of November, his lordship having afterwards transferred his licence to a respectable and experienced English house, we were called upon to receive evidence that the terms of the licence had been fulfilled; and it was clearly proved by the production of books, vouchers, and by sworn testimony, that the bed had been fully worked at a cost of £2,286 5*s.* (See minutes of evidence, Report, and Certificate, page 39).

Circulars have been annually addressed to the several recipients of licences, seeking for information as to the progress in each locality, and we beg to refer to Appendix No. 7, pages 34 to 39, where may be seen the answers from thirty of those parties—some very satisfactory, indeed, and others not very encouraging. However, as the system of culture becomes understood and the advantages become developed, we may hope for more active exertions. The object is one of great importance as a source of employment in favourable situations, and it is to be hoped that all obstacles which can be removed by legislation will have the early attention of the Government. Here I beg to refer to Appendix No. 8, pages 44 to 49, in which will be found the details of a correspondence on the present state of the laws as they affect the oyster fisheries of Ireland.

* In the year 1860, one grant was 1,676 acres.

† This high average was caused by one grant of 1,770 acres.

APPENDIX.

Report of Inspecting Commissioner of Fisheries for 1865.

Fisheries of Norway.

Communications having been received by our Board last summer from the Norwegian authorities requesting co-operation on the occasion of a projected exhibition of fishery objects at Bergen, Mr. J. P. Brophy was selected for the mission, and had charge of such models from our department as were considered deserving of transmission.

In the close of July Mr. Brophy proceeded to Bergen, and as it may be desirable to show that the object of his mission was not unimportant, and that some useful knowledge was expected and received, I beg to append the following letter of instructions forwarded to him, and to refer to his very interesting report (Appendix No. 11, page 54).

Office of Public Works, Dublin,
8th August, 1865.

SIR,

It appearing desirable that advantage should be taken of the opportunity of your official visit to Norway, to make inquiries in regard to the fisheries of that country and the mode of conducting them, the Board request you will do so under the following general heads, viz.:—

1. Nature of fisheries and the localities in which they are carried on.
2. The regulations under which they are conducted, with copies of same, or public enactments.
3. The manner or channel through which the laws are administered; whether by local officers or central Commissioners, or other means.
4. The state of prosperity of the fisheries; whether improving or becoming more developed under the regulations, if any, or falling off.
5. The means employed in taking fish in general, including shallow water or coast and deep sea.
6. Whether any dissensions arise amongst fishermen in respect of different modes of capture, as interfering with each other.

I am, &c.,
E. HORNSBY, *Secretary.*

J. P. Brophy, Esq., Bergen.

Report of the Royal Commissioners.

Since our last report this most important production has appeared and has attracted all the attention and interest to which the work of three such distinguished individuals is entitled; although it is voluminous, there is scarcely a page in it which does not furnish a subject of the deepest interest to all parties who from the peculiar nature of their tastes, their duties, or their pursuits, desire for information on a subject upon which much is yet to be learned.

The first volume submitted to the public contains the Royal Commissioners' Report and the Appendix, the first occupying 107 pages, and the second 72 pages; this volume I have read most attentively. The report contains all the views and suggestions of its distinguished authors. To men less enlightened and of smaller minds accustomed to take possibly less enlarged views of the several perplexing questions which arise in the consideration of the subject, some of the propositions may perhaps seem a little astounding, and the predominating feeling with all who seek only for the truth, and who being divested of prejudices and desirous only to learn, is to seek in the ponderous second volume for reasons to justify the serious changes proposed in the management of our fisheries.

With those sentiments and with feelings of the highest respect for the Commissioners, I flew with great avidity to the second volume of evidence nothing daunted by its huge dimensions, its 1,409 pages, its 61,820 questions and answers. It was only natural that I should have first turned to the Irish inquiry, commenced at Dublin on the 17th of August, 1864, page 784, and terminated at Balbriggan, on the 17th September, page 1,103, and including 14,623 questions and answers. Meetings were held during that period at twenty-one places, Arklow, Balbriggan, Bantry, Carlingford, Carrickfergus, Dingle, Dublin, Dundalk, Dungarvan, Dunmore East, Galway, Howth, Inver, Kenmare, Kingstown, Kinsale, Moville, Ringsend, Skerries, Westport, and Wexford.

At six of those meetings I had the honour of being present, and it is only truth to say that they were conducted with all the intelligence and urbanity which might have been expected on the part of the Commissioners well calculated to elicit truth from witnesses, and, if I can judge from my own evidence, scarcely a word of which had I to alter, with most unerring fidelity on the part of their admirable reporter.

It is believed by some persons that such inquiries, without the restraint produced by the obligation of an oath, are as likely to be reliable as if they were the result of sworn testimony. In this opinion I do not generally concur, and although I am sorry to say that a reckless disregard for truth is, even under that solemn obligation, sometimes observable, I still believe that the restraint is, in most cases, useful, and calculated to prevent the suppression of truth or great exaggeration.

I did not altogether confine my inquiries to the Irish evidence, but so far as time permitted I have, upon especial subjects, referred to the testimony given in England and Scotland, and as our attention was particularly directed in Captain Austin's report, in our Appendix, page 35, to the evidence given by D. Russell, before the Royal Commissioners, at London, on the 16th of March, 1865. (Page 1,329, vol. 2 of evidence).

I find this witness,—after attributing the destruction of the oyster fisheries of the Channel Islands and of the South Coast of England ENTIRELY *to the protection which has been given to them by the French and English Governments, Question* 60,380—having been asked what remedy he would suggest for the evil of which he complained, gives this ready answer—"I would clear away the law and burn all the Acts of Parliament. We should be right enough then.—60,391."

"Would you have the fishing entirely free?—Yes, and I am satisfied that in that case there would be plenty of oysters again.

"Are you in favour of having any close time at all?—I should not be in favour of a close time if I had my own will; I think we should be better without any, but if there was any at all, certainly the month of August ought to be free.—60,398."

"And you think the month of May should be free?—Yes; May also."

This witness's evidence, so thoroughly novel to all those who believe that some time for reproduction is indispensable, is, in the subsequent part, in some degree neutralized by his admission that his opinions were chiefly founded on the fact that he and his family had six smacks, but that being restrained by the Convention Act in 1843, from fishing during the summer months, and having during those months no occupation for their boats they were obliged to give up the oyster fishing, while the people about Essex have other chances of earning a livelihood. When they are not engaged in oyster fishing they go sprat-catching in the winter, and they can go to different

kinds of work so that they can employ their time and manage to get on, but on the South Coast the fishermen have nothing but the oyster fishery to depend on.—60.508. And I presume, for these reasons, there should be no close time.

Although I have waded through many pages of this evidence, and acknowledge that I have derived much instruction from portions of what I have read, I feel myself so bewildered by the great variety of evidence so often conflicting, that I can hardly divest myself of what may be called old prejudices. I am quite incapable of drawing conclusions from this evidence, but I am so very strongly impressed with the merits of those gentlemen whose laborious and indefatigable inquiries have produced such a mass of the information that I am unwilling to attempt to offer any definite opinions on their propositions; and if it should be deemed expedient that we should do so, I should prefer leaving the question for open discussion by the aggregate Board, and bringing my humble judgment in aid of these deliberations. In conclusion, I earnestly hope that the important questions brought under consideration may soon be definitely and wisely settled, and that the state of uncertainty which at present prevails may terminate in arrangements calculated to promote general improvement.

J. REDMOND BARRY.

Office of Public Works,
Department of Fisheries,
May 4, 1866.

Since writing the above, I received the following report from Mr. Maher, which brings the state of the Arklow oyster fishery up to the end of April, 1866 :—

"Arklow, 7th May, 1866.

"SIR,—I feel great pleasure in sending you this, my seventh half-yearly report on the oyster fishery of this town.

"Oyster dredging commenced this year on the 29th of January, and was brought to a close on the 30th of April, during which period the total catch was only 9,820 barrels, and they were disposed of as follows, viz. :—

London and Kent, . . .	5,500 barrels.
France, ...	2,600 ,,
Dublin, ...	1,720 ,,

"The total sum realized by the fishermen for these oysters was £6,305, showing the average price to have been a small fraction over 12*s.* 10*d.* per barrel, which is a falling off of nearly 1*s.* 5*d.* per barrel, as compared with the price during the corresponding period of last year; but the falling off which is most to be regretted is that of the total catch. It is, however satisfactory to note that this falling off cannot altogether be attributed to the scarcity of oysters, as the weather was most unfavourable for dredging, particularly so in the early part of the season.

"That the oysters on these beds have become scarce, I am sorry to say my returns but too clearly prove; and although, sir, you have these returns, I believe it will be more for your convenience to have the figures re-inserted here :—

	Barrels.	Realized. £	*s.*	Average Price. *s.*	*d.*
1863, between 1st Jan. and end of May,	44,500	9,695	0	4	4
1864, ,, ,, ,, ,,	34,038	10,829	10	6	4
1865, ,, ,, ,, April,	15,851	11,319	0	14	3
1866, ,, ,, ,, ,,	9,820	6,305	0	12	10

"From these figures, sir, and taking into account the increase in the number and size of fishing boats that has lately taken place, and the consequent increase of hands to man them you will at once see the prospects of the people depending for their support on the fishery are just now very gloomy. I trust they will be blessed with an early summer herring fishing. In the meantime I am employing all the large fishing boats in my power to carry sulphur ore to Dublin, and a few of the smaller ones are fitting out for trawling; but both will only employ a small fraction of the whole fleet, and the rest must remain idle until the summer fishing commences. I would rather report a more satisfactory state of things now here; but I must again repeat, the fishermen's idleness from dredging this month is enforced for their own ultimate good, although it may entail a slight present loss to them.

"The falling off shown in my Returns clearly prove, sir, the wisdom of the steps you have taken in extending the close time, whereby these oyster beds were saved from destruction, and a source of profitable employment preserved for the fishermen, if not all they could wish, at least for a considerable period of each year, when no other employment is open to them.

"I am, sir, your obedient servant,

"P. MAHER.

"James Redmond Barry, esq."

State of the Registry of Fishing Vessels on the Coast of Ireland to 1st January, 1866, pursuant to the

No.	Name of District.	Boundaries.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
1	Dublin, .	From Whip of Water, Nth., to the Breaches, South.	R. Roche, Commander, R.N.	67	259	82	93	366	10	160	625	92	78	331	62
2	Arklow, .	From the Breaches to Sluice River.	G. M. Balfour, Commander, R.N.	169	924	95	127	627	40	296	1,551	135	184	1,016	95
3	Wexford, .	From Sluice River to Bannow, Co. Wexford.	Charles Gibbons, Commander, R.N.	42	230	9	209	918	57	251	1,148	66	37	200	6
4	Waterford,	From Bannow to Ballyvoile Bridge, Co. Waterford.	Geo. Welch, Commander, R.N.	38	147	13	298	1,079	30	336	1,226	43	38	140	13

No. 1.

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
101	295	27	179	626	89	19	1	–	–	–	3	Boats and gear improved; signs of improvement considerable and present prospects very good. Very little emigration. Last year more productive in the take of herrings and capture of fish by trawlers than the preceding. Small natural banks of oysters improving; no new banks discovered; no enterprize in the oyster trade; price of the oysters 4*s.* 6*d.* a hundred. No Curing Establishments or ice houses; fish sold fresh; no collisions; fishermen orderly and peaceable; the men generally employed in fishing. Registry perfect. Trawling practised without contention in Dublin Bay, outside Howth, and the Mugglins. No bad effects from trawling as at present limited. There are about fifty trawl boats, averaging forty tons each; they fish in from ten to sixty fathoms of water; size of mesh four to six inches. The number of trawlers about the same as preceding year. The boats engaged in line and seine fishing are nearly all second-class. The fish taken by the trawlers are sold both in the local and distant markets; that taken by line and seine sold in the Dublin market. All kinds of ground fish taken by the trawl; salmon and trout by seines. Best season for cod and hake, autumn and winter; autumn best for mackerel. Chief impediment to improvement is the absence of any good harbour for boats south of Bullock. A small harbour inside Dalkey Island would very much benefit the fishermen. The question of herring fishing by daylight might be reconsidered.	1
131	651	40	315	1,667	135	19	116	–	–	–	–	Boats larger; nets longer and deeper than in preceding three years. Signs of improvement progressive. Emigration not a marked feature. Take of fish on an average the same as preceding year, but the price increased, the demand from England being greater. Oyster fishery flourishing; *great* natural banks exist along the shore and for miles off. The supply for the English and French markets may be said to be improving, because they demand a small oyster, and for the last three years the Gorey beds have been more worked, the old large oyster has been removed, and the supply is still great for all markets. No new banks lately discovered; no private beds; average price about 15*s.* per barrel; average quantity sold, 11,000 barrels. No Curing or ice houses; fish sold fresh. Not a single instance of conflict reported or known. Fishermen orderly when fishing, but require strict supervision when wrecks take place; the men generally employed in fishing. The system of registry is perfect, but a new registry absolutely necessary; suggested that the numbers should be deeply cut on the bow of each boat, and the name on the stern, and a metal disk with registered number nailed on the stern post. No trawl or trammel fishing. Four boats fish with seines; no regular line fishing; fish sold in local markets. Cod taken in October, November, and December; salmon and trout February to September, and are best about August. It is said the fish spawn in the seaweed in deep water. The best means for obtaining statistical information are a simple registry, kept by a deputed officer, to be made compulsory on the owners of boats. The chief impediment to improvement is the want of a good harbour, which the boats could enter at any time or weather. The improvement of the fishery entirely depends on this. At Courtown, where the harbour has been improved, the fishing has been considerably increased, and better nets and boats brought into use. At Arklow the fishermen are hardy, intelligent, and enterprizing, but their endeavours are checked for the want of a good harbour. There 600 fishermen may often be seen idle for a fortnight and even three weeks, because the bar of sand across the harbour's mouth locks in the boats. The cost of remedying this may be considerable, but the Arklow fishery appears a question of national importance. About 150 boats engage in the herring and 100 in the oyster fishery off that coast, and if a strong breeze or gale spring up they are dispersed to Kingstown or Wexford. If a safe harbour were made larger boats and more men could be employed, and the supply of herrings for Dublin, Liverpool, Manchester, and Berningham would be almost beyond the demand.	2
195	815	78	232	1,015	84	–	–	18	19	133	–	Boats and gear improved in Wexford Harbour, but not in the open coast; no sign of improvement within the last year. Present prospects fair. Very little emigration. Take of fish not quite so good as in preceding year. Great natural oyster banks exist on this coast, called the Wexford and Ballyvalden beds. The Wexford bed not so good; the Ballyvalden much improved. The oysters are of very good quality; average price 9*s.* per tub; about 9,000 tubs sold within the year. No Curing or ice houses. The fish are sold in the fresh state. No conflicts; fishermen orderly and peaceable. The able-bodied men usually employed in farming, and only fish occasionally. Registry perfect. Trawling practised without contention outside Wexford Harbour. A few boats use trammel nets. Trawling does not appear to injure the general fishing interests, as the ground is not overworked. There are nine trawlers of about eighteen tons each; they fish in from four to ten fathoms of water; size of mesh, four inches. Number of trawlers less than preceding year. About 150 boats, of from one and a half to twenty tons engaged in seine, trammel, and line fishing. All the fish taken by the trawl or other means sold in the local markets. Turbot, plaice, and sole taken by trawl; cod, plaice, herrings, &c., by the other modes; they are all generally best in the winter. The chief impediments to industry are the want of means and comparative scarcity of fish. The most accurate statistical information as to quantity of fish, &c., could be obtained at the local markets.	3
287	1,053	25	325	1,193	38	–	–	–	11	33	5	Boats and gear on the decline. No sign of improvement, and prospects dull. Fishermen inclined to emigrate at Bonmahon, but not generally through the district. Last year less productive than preceding in all modes of fishing. One natural oyster bank off Duncannon Fort and one off Woodstown, but both declining. Two private beds at Rinnashark lately stocked. Quality of the oyster very good; price, 3*s.* to 4*s.* per hundred. No Curing Establishments; fish sold fresh. No conflicts; fishermen orderly and peaceable. Men generally employed in fishing when practicable. Registry perfect. Trawling and trammel fishing practised without contention. The effect of trawling on the general fishing interests is injurious, because it disturbs the feeding ground of the fish, and the mesh being too small destroys the spawn. There are thirty-seven trawl boats of from six to thirty-seven tons; they fish in from five to fifty fathom water, with a two and a half inch mesh. Number of trawlers the same as last year; 327 boats of from two to thirty-seven tons engaged in seine, trammel, and line fishing. All fish sold in local markets. Soles, plaice, turbot, and mullet captured by trawls; best in summer; cod, ling, conger, hake, whiting, pollack, bream, and gurnard taken by the other modes of fishing, and are best in winter. The fish are believed to spawn in deep water on clear ground. The chief impediment to progress is want of capital and energy. To obtain statistics a person should be appointed by the Commissioners to procure the information at the different localities. There is great trouble in making the fishermen mark their boats.	4

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
5	Youghal, .	From Ballyvoile to Garrarow.	T. D. Williams, Commander, R.N.	53	293	15	125	669	16	178	962	31	50	298	10
6	Queenstown,	From Ballycotton Bay to Ringabella Bay, Queenstown Harbour.	J. H. Coxon, Commander, R.N.	42	144	11	197	819	23	239	963	34	44	162	14
7	Kinsale, .	From Flat Head to Inchy Bridge.	C. G. Jones, Commander, R.N.	46	312	25	393	2,055	77	439	2,367	102	46	274	28

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
147	765	13	197	1,063	23	19	101	–	–	–	8	Youghal station.—No improvement in boats and gear. Emigration prevails. Last year much less productive in take of fish. No oyster beds or Curing Establishments. Registry in a confused state. Two hookers of fourteen and eighteen tons engaged in trawling; size of mesh, four and a half inches. Fish sold in local markets, and sent by rail to Cork. Flat fish best in summer, round best in winter. Want of capital chief impediment to improvement or progress. Helvick Head.—No improvement or sign of it in boats and gear Very little emigration. Fishermen would remain at home if fully employed. No natural oyster beds. The beds licensed have not been stocked. No Curing houses. Fishermen orderly, and generally employed in fishing. Fourteen vessels of thirteen tons each trawl in fourteen fathom water, with a mesh of five inches from knot to knot. Twenty-nine boats of five tons each pursue the other modes of fishing, seine, trammel, and line. Fish sold in local and distant markets. Sole, plaice, and turbot taken in trawl; mackerel, sprats, hake, cod, and ling by the seine, trammel, and line. Hake taken from June to December; cod and ling December to March. Hake best in November; cod and ling in January. From Mine Head to Ferry Point.—No improvement in boats and gear. Emigration prevails, but the people would remain at home if fully employed. Take of fish much the same as last year. No oyster beds or Curing houses. Fishermen orderly and peaceable. Registry perfect. Trawling and trammel-net fishing practised without contention. Trawling is considered to be injurious to the spawn of fish. Trawlers work in five fathom water with a four and a half-inch mesh. Twelve boats engaged in seine, twenty-two in line fishing. Fish sold in the local market. Sole and plaice taken by the trawl, hake by the line, sprat and mackerel by seine. Fish not so abundant as in former years. From Famish River, north, to Garreroe, west.—A slight improvement in boats and gear. Prospects more favourable during the last season. A spirit of emigration still prevails, but the fishermen, if fully employed, would remain at home. Last year more productive in take of fish than the preceding. No oyster beds, Curing, or ice houses. Fish sold fresh. No conflicts; fishermen orderly and peaceable. About half their time employed in fishing. Trammel fishing practised without contention. No trawling. Thirty-five boats, three tons each, employed in seine, trammel, and line fishing. Fish sold in the local markets. Hake, conger, bream, gurnard, and cod taken by line, hake by trammel, sprats by seine; all in best condition and greatest abundance in the last quarter of the year. From Ballyvoile to Dungarvan.—Boats and gear much worse this year. No sign of improvement. Emigration still prevails, but fishermen, if fully employed, would remain at home. Last year less productive in the take of fish than the preceding. No great natural oyster beds. No steps taken to stock the ground for which licences have been granted. No Curing houses; fish sold fresh. No conflicts; fishermen quite peaceable. No able-bodied men engaged in fishing. Registry perfect. No trawls or trammel nets. The fish taken by line sold in the local markets. Hake in greatest quantity and best condition from August to December. Chief impediment to progress is the scarcity of fish Chief impediments to improvement in the district generally are emigration and consequent reduction in the number of fishermen employed, together with laziness and want of energy in those that remain. To obtain accurate statistical information a person should be appointed whose sole duty would be to collect the information. To improve the fisheries a company should be formed who would keep the boats in good working order, and have sufficient power to compel the fishermen to carry out their agreements, showing them at the same time the benefit to be derived from regular work.	5
229	644	42	273	806	56	34	–	22	–	157	–	No alteration in boats and gear about Crosshaven and East Ferry. Reports from the other stations indicate a falling off, in consequence of bad seasons and want of means to keep boats in repair. No sign of improvement; prospects indifferent. About Ballycotton a spirit of emigration prevails, but the people state that the majority would remain at home if sure of full employment. Last year less productive in the take of fish everywhere, and in some places worse than any during former years. The only oyster beds in this district are at East Ferry station, Ballinacussa River, a few in the river Lee, and in the harbour. No new banks have been discovered, nor have any steps been taken to stock the grounds licensed. The quality of the oysters is fair, and the price varies from 5*s.* to 8*s.* per hundred. No Curing or ice houses. No conflicts or collisions; fishermen peaceable and orderly. Majority of able-bodied men employed in fishing; some in coasters. Registry perfect. Trawling practised without contention at Ballycotton, Poore Head, Roche's Point, East Ferry, and Queenstown Harbour. Considers there should be no restraint on the various modes of fishing. The general opinion is that in the spawning season the trawl destroys large quantities of spawn, and it is stated that the decrease in the quantity of fish is to be attributed to trawling. Twenty five to thirty trawlers, of from five to eighteen tons, work in from five to twelve fathom water with four and a half-inch mesh. Number of trawlers less than preceding year. About 150 boats, of one to three tons, employed in seine and line fishing. The fish taken is sold in the local markets. Turbot, sole, plaice, and pollack taken by the trawl; herrings, sprats, and mackerel by seine; cod, hake, gurnard, bass, and bream by line. Cod, hake, ling, and turbot best in winter; worst in summer. Sole, plaice, pollack, herrings, sprats, mackerel, bass, bream, and gurnard best in summer and autumn; worst in winter and spring. The fish are generally supposed to spawn in shoal water on sand or shingle, but nothing known for certain as to spawning. The chief impediments to improvement are undoubted scarcity of fish and consequent scarcity of men, many of whom have gone to sea and emigrated, the takes of fish not being remunerative. Statistical information could be best obtained by the employment of persons well informed on the subject of fishing, and also by keeping a register in the fish markets First class vessels (hookers), would do better about Ballycotton if they had a place of safety to anchor or run into. Such boats are often obliged to run to Cork or Youghal.	6
398	2,076	106	444	2,350	134	5	–	32	–	17	–	Between Myrtle-villa Point, east, and Flat Head, west.—No improvement in boats or gear; boats falling off in numbers. Emigration prevails, but fishermen would prefer stopping at home if they got employment. Last year less productive in take of fish. No oyster fisheries. No oyster beds, natural or artificial. No Curing or ice houses; fish sold fresh No conflicts; fishermen peaceable and orderly. They fish when the fish is on the coast. No trawls or trammels. Sub-officer considers trawling injurious to the fishing interest generally, as it destroys a large quantity of small fish and spawn. Fish sold in local markets. Sprats, mackerel, skad, and small pollack taken by seines	7

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
8	Skibbereen,	From Hollyinchy Bridge to Three Castle Head.	T. S. Gooch, Commander, R.N.	24	131	43	837	3,843	297	861	3,974	340	16	83	26

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
												in summer. Hake and bream caught in summer only by hand line. The chief impediment to progress is the scarcity of fish. The kind of fish which used to be taken appears to have left the coast. Between Flat Head, east, and Hangman's Point.—No improvement in boats and gear; prospects very indifferent. A spirit of emigration prevails. Last year less productive. No oyster fishery, Curing, or ice houses; fish sold fresh. No collisions; general habits of fishermen peaceable. The able-bodied employed in occasional fishing. Registry perfect. No trawl or trammel fishing. Four yawls, of about thirty tons, occasionally employed seine fishing; five hookers line fishing. Sprat, skad, and mackerel caught by seine; hake by line. Seine fishing prevails in summer. Hake in best condition in winter. It is thought there is a spawning ground about six miles south of Barry's Head in forty-five fathoms water on sandy bottom. The chief impediment to progress is scarcity of fish. Between Hangman's Point and Hake Head, west.—Boats and gear gradually improving, and prospects better. If the men got employment they would prefer staying at home. Take of mackerel very much greater than in preceding year; take of other fish less. Oyster fisheries indifferent. There are some small natural beds, but no licensed or private beds. Oysters sell for 3*s.* and 4*s.* the hundred. No ice houses. Two Curing houses, but not used. Fish sold fresh. No conflicts; fishermen peaceable and orderly. Men employed in fishing when the fish are on the coast. Registry perfect. No trawl or trammel fishing. Sub-officer is of opinion that trawling constantly destroys the spawn and small fish, by continually moving the gravel and weeds. Thirteen boats engaged in seine and sixty-three in line fishing. The fish taken is sent to Cork, Dublin, and Liverpool, and part sold in the local market. Sprats, mackerel, skad, and pollack taken by seines in summer; hake, cod, ling, and conger by hand lines from May to March. The fish which the people were in the habit of taking appear to have left the coast, and a number of people have emigrated. These are the impediments to improvement. Howstrand station, from Abbron Hill to Granfeen Point.—Boats and gear in same condition. No improvement or sign of it. A spirit of emigration still prevails. Last year more productive in the take of fish than any for the last ten years. No oyster fishery, Curing, or ice houses. No conflicts; fishermen peaceable and orderly. The able-bodied men are all farmers or farm labourers, who fish occasionally; no persons depending on fishing for a living. No trawl or trammel fishing. Fish taken kept for home consumption. Herrings, sprats, hake, and bream taken from July to October. Seldom able to fish after October. Those who fish very seldom catch enough for their own use. Between Granfeen Point and Filebresta.—Boats and gear improved, and still further signs of improvement. Present prospects good. No great wish to emigrate. Those only emigrate who are sent for by their relatives. Last year more productive in take of fish than the six previous years put together. No oyster fishery or oyster beds, public or private. No Curing or ice houses. Each person cures his own fish, and some of the fish is sold fresh. No conflicts; fishermen peaceable and orderly. Able-bodied men constantly employed between fishing and farming. Registry perfect. Both trawling and trammel-net fishing practised between Sevenheads and the old head without any contention whatever. Two hookers, about fourteen tons each, trawl constantly in Courtmacsherry Bay. About ninety-five boats, of two and a half tons each, employed in seine, trammel, and line fishing. Part of the fish taken is sold on the spot, and the remainder sold in neighbouring towns. Dunny Cove station.—Emigration going on, but not for want of employment in fishing. Last year less productive in take of fish than the preceding. No oyster beds, natural or artificial. No curing; fish sold fresh. No conflicts; fishermen orderly and peaceable; only occasionally employed in fishing. Registry perfect. No trawls or trammel nets. Fifty boats, of about one and a half tons each, employed in line fishing; one in seine fishing, but very seldom. If mackerel come close in the seine is used, but not otherwise. Chief impediment to progress is scarcity of fish. Between Dunnowen, east, and Inchybridge, boats and gear in same average condition; no sign of improvement; present prospects depend on the weather. Very few emigrating from this locality. Last year about as productive as preceding in take of fish. No oyster beds, public or private. No Curing or ice houses; fish chiefly sold in the fresh state. No collisions; fishermen peaceable and orderly. Men employed in agriculture and fishing. No trawls or trammels. Two boats of one and a half tons each employed in seine fishing; thirty boats of one and a half tons each in line fishing; fish chiefly sold in the local markets. Sand eels taken by seines; cod, ling, and conger by line, and in good condition from December to March, inclusive; bream best from May to September, inclusive.	
804	3,991	204	820	4,074	230	–	100	–	41	–	110	A gradual decline in condition of boats and gear. No improvement or sign of it, and present prospects poor. A spirit of emigration prevails, but it would probably be less if the fishermen were fully employed and had good markets. Last year much less productive in take of fish than the preceding. Natural oyster beds exist off Crookhaven, but not worked. Private beds in Skull Harbour becoming destroyed. A few licences have been granted, but the beds have not been stocked. Quality of oysters good; price 3*s.* a hundred. One establishment at Crookhaven for salting fish. Fish cured by fishermen in the ordinary way, but chiefly sold fresh. No conflicts; fishermen orderly and peaceable. Able-bodied generally employed in fishing. Present system of registry works well. Fishery principally carried on by trammel nets. Trawling practised only to a small extent. Trawling injurious to the general fishing interests if practised in shallow water as it destroys the spawn. From twelve to fourteen Cork boats, from twenty to forty tons each, trawl in from ten to twenty fathom water, with a mesh of one and a half inches from knot to knot. Number of trawlers about the same as preceding year. Eight hundred and twenty boats of 1,420 tons, engaged in seine, line, and trammel fishing. Fish caught by trawl sent to Cork; that taken by the other modes sold in local markets. Turbot, plaice, sole, mackerel, skad, hake, dabs, and cod taken by trawl. Herring, pilchard, mackerel, skad, mullet, and pollack taken by seine. Plaice and hake by trammel. Ling, cod, conger, gurnard, hake, haddock, bream, and whiting taken by line. Cod best in winter, particularly in January; worst in summer. Hake best in September and October; worst March to May. Whiting and haddock best in winter; worst in summer. Turbot, plaice, mackerel, mullet, pollack, and skad best May to September; worst October to March. Herrings and pilchards best June to September; worst in winter. Fish are supposed to spawn off Crookhaven in sixty to eighty fathom water on rocky bottom; off Baltimore and Castletownsend in five to forty fathoms on rocky bottom; off Glandore and Ross in ten to fifty fathoms on sandy bottom. The chief impediments to improvement are decrease of coast population, scarcity of fish, farming being	8

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
9	Bantry, .	From Three Castle Head to Glengariff.	H. B. Gawler, Master, R.N.	5	20	–	196	784	–	201	804	–	10	40	–
10	Castletown,	From Shot Head to Sneem, Co. Kerry.	H. Harper, S. Commander, R.N.	7	28	4	498	2,734	388	505	2,762	392	6	36	–
11	Westcove, .	From Sneem to River Eroyknock.	J. J. Boileau, Lieutenant, R.N.	8	16	8	110	400	80	118	416	88	8	16	8
12	Knightstown	From Enagh River to Castlemaine.	J. K. White, .	–	–	–	238	1,175	–	238	1,175	–	–	–	–

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys	Vessels.	Men.	Boys	Vessels.	Men.	Boys.		
												more profitable, want of capital, want of accessible markets, and great cost of carriage. To obtain statistical information, owners of fishing boats might be supplied with printed forms on which they could show the kinds and quantities of fish caught, and forward them to the registering officer every quarter. The fisheries can only be improved by an employment of capital in purchase of boats and material, and the maintenance of a special system of carriage between the coast and the large markets. A joint stock company properly managed would probably pay.	
206	618	–	216	658	–	15	–	–	–	146	–	Boats and gear much in the same condition as previous year. A slight improvement in them within the last three years. Present prospects not promising. Very little emigration. Last year less productive in take of sea fish than preceding. Two private oyster beds, but no oysters sold. Some old Curing Establishments, but the fish generally sold in the fresh state when it can be disposed of. No conflicts; fishermen very orderly and peaceable. A few able-bodied men generally employed in fishing: a few old men and some boys engaged. Registry nearly perfect. Both trawl and trammel net fishing pursued. Does not consider trawling injurious to the fishing in the bay. Ten smacks, from twenty-five to forty tons each, trawl in from twenty-five to forty fathom water, with a two to seven inch mesh. Two hundred and six boats engaged in the seine, line, and trammel fishing. Fish generally sold in the local markets, except soles, which are sent to Dublin. The fish taken are whiting, plaice, soles, cod and haddock, and some turbot. No spawning in this bay. Want of energy chief impediment to progress Statistical information best obtained by having some person to take the number and quantity of fish as the boats arrive. Existing laws sufficient to preserve order.	9
40	240	40	46	276	40	–	–	–	459	2,486	352	No alteration in boats and gear. No improvement, or sign of it. Emigration prevails. Last year less productive than preceding in take of fish. No oyster fishery, curing, or ice house. No conflicts. Fishermen orderly and peaceable. Registry perfect. Trammel fishing practised without contention with line fishers. No trawling. Twenty boats engaged in seine and trammel fishing, and twenty in line fishing. Fish sold in both local and distant markets. The various sorts of white fish taken from June to October, in bad condition during the other months.	10
100	400	60	108	416	68	–	–	–	10	–	20	Boats and gear indifferent. No improvement, or sign of it. Full employment at home would not prevent emigration. Take of fish last year about the same as preceding. First-rate natural oyster beds. Some of the landlords endeavouring to stock the private beds. The best oysters in Ireland are taken here. The price from 5*s.* to 7*s.* 6*d* per 120. From 1,200 to 1,800 per week sold from Sneem alone. No curing or ice houses. No conflicts; fishermen orderly and peaceable. Able-bodied men employed more about their crops. Registry in fair order. Trawling and trammel net fishing exist, and the late laws laid down by the Commissioners will cause an improvement. Of opinion that trawling is most injurious to the general fishing interests from Blackwater River to Kenmare. Four boats, about fifteen tons each, trawl in from three to eight fathom water. Number of trawlers about the same as preceding year About 100 boats of three tons each engaged in the seine, line, and trammel net fishing. Some of the fish taken by the trawl sent to distant places; that taken by the other modes sold in local markets. Turbot, black soles, and plaice in very good condition between May and October; worst from 1st November to 31st March. From Blackwater River to Kenmare the spawn is believed to be deposited in from two to eight fathom water. Chief impediment to progress is scarcity of labour. The poor people make more money by their farms than they could by fishing Formerly the population was so large that some families were obliged to live by fishing. To obtain most accurate statistical information, the people employed in fishing should be requested to keep an account of the fish taken, and then a paid officer should be employed to go round the boats and collect the necessary information. To improve the fisheries it is suggested that small rewards or prizes be given to the most industrious, to be decided according to the quantity of fish produced for sale at the local markets, by the salesmaster or some appointed person. The Clerk of the Conservators could find out all the necessary information.	11
222	1,000	20	222	1,000	20	–	–	20	16	175	–	A slight improvement in boats and gear. Seine fishing, deep sea fishing, and long line fishing yearly getting worse. An extensive lobster fishing opened at Portmagee by an English gentleman from Salcombe, which is a great boon to the poor fishermen along the coast. The fishermen are still obliged to emigrate for want of employment, but if fish could be got it is believed they would remain at home. Last year not so productive as the preceding in take of fish. No natural oyster beds. But one small private bed at Valentia, from which there are no returns. One Curing Establishment at Portmagee; the fishermen cure their own fish along the coast. No ice house. Fishermen most orderly, peaceable, and well disposed in every way. No conflicts whatever. Able-bodied men generally employed in fishing. Registry perfect. Trawling carried on in Dingle and Ballinskelligs Bays without contention with the line fishers up to the present. The officer says, "I believe the fish of all kinds, except salmon, are getting more scarce each year close to shore, in consequence of the trawlers being allowed to fish in the bays close in shore. In my opinion no trawlers ought to be allowed to fish inside the line of headlands. My opinion is, and has been for years, that trawling in bays is the ruin and destruction of all kinds of spawning fish, and in this opinion I am supported by the majority of fishermen, wherever I have been, in all parts of the world." Twenty-five boats, of from twenty to sixty tons, trawl in from four to thirty fathom water. The number of trawlers about the same as preceding year. About the same number engaged in seine, line, and trammel fishing. Part of the fish taken is sold in the local markets, and part sent to distant places. Soles, plaice, thornback, rays, and sometimes turbot, taken by trawl. Bream, skad, mackerel, hake, haddock, cod, ling, and herring by the other modes. All these, except cod, haddock, and ling, prevail and are in best condition from June to October. Cod, haddock, and ling in best condition from January to April. Ling and cod are supposed to spawn on sandy bottom near rocky ledges in about fifty fathom water; hake and haddock more inshore and inside of headlands. The chief impediment to progress is that the fish are much more scarce, and fishing not so remunerative, as it is yearly getting worse for haddock, herring, hake, ling, and cod. To obtain statistical information application should be made to the fishermen themselves, or to those who purchase and cure the fish.	12

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
13	Dingle, .	From Cromane Point (Bull Head) to Blennerville.	E. S. Meara, Commander, R.N.	14	60	4	134	536	–	148	596	4	16	70	4
14	Ballyheigue,	From Blennerville to Cashen River.	A. Kennedy, Lieutenant, R.N.	22	70	–	19	58	–	41	128	–	22	70	–
15	Kilrush, .	From Cashen River to Kilbaraha.	Webb E. Stone, Commander, R.N.	–	–	–	185	543	5	185	543	5	–	–	–
16	Seafield, .	From Blackhead to Farrihie Beach.	F. Taylor, Master, R.N.	–	–	–	65	185	–	65	185	–	–	–	–
17	Galway, .	From Farrihie to Mason Island.	B. L. Lefroy, Commander, R.N.	82	352	22	434	1,332	23	516	1,684	45	64	206	16
18	Clifden, .	From Mason Island to Ruana Point.	W. H. Annesley, Commander, R.N.	52	142	–	123	130	–	175	272	–	43	123	–
19	Westport, .	From Doobeg to Ruana Point.	W. C. Pyper, Master, R.N.	18	54	–	212	630	280	230	684	280	19	56	–

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
140	544	–	156	614	4	8	18	–	–	–	–	Some slight improvement in boats and gear. Prospects as to fish rather gloomy. No emigration. Take of fish greater last year than preceding. No oyster fishery, curing or ice houses. Fish sold fresh. No conflicts; fishermen generally well conducted. Registry perfect. Trawling and trammel net fishing practised for years, and generally the by-laws respected by both parties. Trawling seems not to decrease the quantity of fish, as last year was better than the previous year. Sixteen trawlers of from sixteen to forty tons, trawl in thirty-five to forty-five fathom water. Number of trawlers increased by two. One hundred and forty boats, from three to five tons each, engaged in the seine, line, and trammel fishing. All flat fish sent to Dublin; round fish sold in local markets. Sole, turbot, brit, and plaice taken by trawl; round fish by trammel. Fish in best state from March to September or October; worst from October to February. The fish are believed to spawn in about seven fathom water, on gravel and sandy bottom. Want of means and assistance is the chief impediment to progress. To obtain statistical information, application should be made to the agents and owners of boats who generally receive the price of fish sent to Dublin markets.	13
37	164	–	59	234	–	18	106	–	–	–	–	Boats and gear in same condition. Oyster fishery improved, the take one-third more than preceding year. The great natural oyster banks improving; quality of oysters good, and price varies from 16*s.* to 20*s.* per 1,000. Twenty-seven boats take on an average 250,000. No curing or ice houses. No conflicts; fishermen quiet and peaceable. Registry perfect. Trawl fishing carried on without contention. The trawlers work in about thirty-seven fathom water. Number of trawlers same as preceding year. No seine, line, or trammel fishing. No fishermen in this district; no ports; coast impracticable. The only means of obtaining statistical information is by applying to the parties in charge.	14
214	704	8	214	704	8	29	161	3	–	–	–	No improvement or sign of it in boats and gear. Last year less productive than preceding in take of fish. Oyster fisheries in fair condition. No great natural banks. Ground stocked where licences granted. No curing or ice houses. Fish sold fresh. No collisions; fishermen peaceable. Fishing boats mostly employed in collecting sea-weed. Registry not correct. No trawl or trammel fishing. The fish caught is sold in distant markets. All kinds of fish taken by seine and line. The fish are believed to spawn in the fresh water estuaries. The chief impediment to progress is insufficient quantity of fish to encourage people in fishing.	15
80	240	–	80	240	–	15	55	–	–	–	–	Boats and gear very indifferent. No improvement or sign of it. The spirit of emigration still prevails. Last year less productive than the preceding in the take of fish. No oyster beds, natural or artificial. No curing or ice houses. Fish sold in the fresh state. No conflicts; fishermen, who are very few, peaceable and orderly. No trawl or trammel net fishing. Cod, haddock, ling, and flat fish taken by line. The impediments to progress are the scarcity of fish and the rotten condition of the fishing gear, which the men, through poverty, are unable to replace. To procure statistical information the fishermen should be made to give an account of their daily haul to the officer at the nearest Coast-guard station.	16
383	1,183	22	447	1,389	38	–	–	–	69	295	7	Take of fish decreasing, and the fishermen poorer and unable to keep their boats and gear in good order. Many fishermen still emigrating. Last year less productive in take of fish than preceding. Natural oyster banks are few. No new banks discovered. Supply of oysters decreasing. Some few private beds are attended to. Quality of the oysters good. No curing or ice houses. Collisions between per ons pursuing different modes of fishing less frequent. Any attempt at trawling opposed by the Claddagh men. Fishermen generally quiet, and employed in fishing when the weather permits. Registry perfect. No trawling allowed in Galway Bay; if tried it is sure to be opposed. All the boats in the district engaged in seine and line fishing. Fish sold in the local market. Herrings best in September; worst in December. Gurnard, bream, and mackerel best in summer. Hake and whiting best from September to December. Cod best from November to March. Habits of fish as to spawning not known. The impediments to progress are extreme poverty, tendency to emigrate, and decrease of fish. By sending an agent to take account of the fish taken by the boats as the fish is brought in, statistical information could be obtained.	17
336	1,270	–	379	1,393	–	204	1,121	–	–	–	–	No improvement in boats or gear, and no prospect of it. Emigration does not prevail so much as in former years. No regular fishermen. Very little difference in take of fish between this and last year. Oyster fisheries good. A few natural banks in the estuaries. Supply of oysters much the same as in former years. One new natural bank discovered. Those to whom licences have been granted are taking steps to stock their beds. Quality of oysters good. A few hundred barrels sold within the year. No curing or ice houses. Small quantities of fish dried for home consumption, and some sold in the fresh state. No collisions; fishermen orderly and peaceable. Line fishing only pursued. The able-bodied are generally at farm-work, and employ their spare time in fishing. Registry perfect. No trawling or trammel net fishing. Is of opinion that trawling is generally injurious to the fishing interests. About 220 boats employed in line fishing. Fish sold in the local markets. Cod, bream, pollack, gurnard, turbot, mackerel, taken by line. Cod best from December to March. Bream, pollack, gurnard, and mackerel best in summer. The fish are believed to spawn in coral sand, in depths varying from five to twenty fathom water. Poverty and indolence are the chief impediments to progress. By having various agents established throughout the district, statistical information can be had. The officer says, "Were companies formed to fish this coast, I believe the country people would gladly enter into the fishing, and would, in the course of time, establish regular boats and gear. At present their poverty prevents them providing the necessary appliances."	18
218	640	220	237	696	220	7	12	–	–	–	60	Boats and gear apparently declining. No sign of improvement, and prospects bad. A spirit of emigration prevails. Last year less productive than preceding in take of fish. Great natural banks on these shores, but they are not improving in supply. Steps have been taken to stock the ground where licences have been granted. Price of oysters 5*s.* 6*d.* to 6*s.* per hundred. No curing or ice house. Fish sold in the fresh state. No conflicts; fishermen peaceable and orderly, but very little employed in fishing. Registry perfect. No trawling or trammel fishing. Nineteen boats, of 198 tons, occasionally employed in seine fishing. Fish sold in local markets. Fish taken in best condition in spring; worst in autumn. Scarcity of fish and want of material are the chief impediments to progress.	19

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys	Vessels.	Men.	Boys	Vessels.	Men.	Boys	Vessels.	Men.	Boys.
20	Keele, .	From Ballycray Castle to Bony Glen.	F. Harris, Lieutenant, R.N.	10	30	–	250	760	20	260	790	20	3	9	–
21	Belmullet, .	From Butter Point to Doona Head.	T. Bate, . .	–	–	–	182	528	89	182	528	89	–	–	–
22	Ballycastle,	From Brandy Point, Broad Haven, to the centre of Bartra Isle, Killala Bay.	W. C. S. Sulivan, Lieutenant, R.N.	1	2	–	154	821	23	155	823	23	2	5	1
23	Pullendiva,	From Sligo Bridge to Ballina Bridge.	G. Horwood, Master, R.N.	1	3	–	103	551	14	104	554	14	1	4	–
24	Sligo, .	From Abbey Point to Sligo Bridge.	W. K. Shoveller, Captain, R.N.	4	13	1	109	576	43	113	589	44	5	17	–

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
199	790	20	202	799	20	–	9	–	58	–	–	Boats and gear on the decline. No improvement or sign of it. Present prospects not favourable. A spirit of emigration prevails to a certain extent; but the fishermen show so little enterprize, and are so jealous of strangers, that it is extremely doubtful if employment would materially alter the case. Last year less productive than preceding in take of fish. Oyster fisheries stationary. There is but one natural bed, which has been less productive this year. No new natural banks discovered. Mr. Pike has stocked the ground licensed to him, and redistributed the oysters. Quality of oysters good; price about 2*s.* per hundred. Approximately from £90 to £100 worth sold this year. One Curing Establishment for salmon at Achill Sound. Fish not consumed by the fishermen; sold fresh. No conflicts; fishermen orderly and peaceable, but strongly disposed to plunder and secrete wreck. The able-bodied, when not employed harvesting in England and Scotland, or on their own land, are generally engaged in fishing. Registry complete, but it is very difficult in many cases to induce the fishermen to paint the name and number on the boats. No trawl or trammel fishing. Two or three boats, of two tons each, employed in seine fishing. One hundred and ninety-nine boats, of one and a half tons, occasionally engaged in line fishing. Fish taken by seine sent to distant places; that taken by line sold to hawkers, but as a general rule it is consumed by the fishermen. Salmon and mackerel taken by seine in best condition in June and July. Cod, ling, pollack, haddock, best in January and February; worst in June. It does not appear that the Achill fishermen were ever remarkable for much enterprize; the great majority having small holdings of lands it acts as a deterrent against exertion.	20
225	785	61	225	785	61	43	257	–	–	–	28	Boats and gear better than the two preceding years. Prospects better than in the two preceding years. Except salmon, last year more productive than the preceding in take of fish. Until last year oysters were very little taken here. There was a very good natural bank in Blacksod Bay, but dredging has been carried on to such an extent last year and the present, that if continued in the same way, in two years there will not be an oyster in the bay. Mr. Richards' bed, the only licensed one, is well stocked. General quality of the oysters very good. Two years ago they were sold for 6*d.* per 100, now they bring from 2*s.* to 2*s.* 6*d.* Six cargoes of sixty barrels each, and 700 in each barrel, were taken out of Blacksod Bay this year. One Curing Establishment, but it has been very little used for the last six or seven years. Fish generally sold fresh. No ice-house. No conflict or disturbance. The fishermen generally inclined to drink, and when they drink they are not very peaceable or orderly. Registry tolerably perfect, and the only way to enforce the registry is to seize the boats not registered. No trawling or trammel fishing. The only fish taken by seine are salmon, which are generally sent to Liverpool or London. Want of proper boats and fishing tackle is the chief impediment to improvement. The fish were formerly got near the shore, they have now gone further off into deep water, and their capture would require larger boats and better tackle than formerly, and also a person well acquainted with fishing to instruct the people in the best modes of capture. The fish are caught in so many different places, and in such small quantities, that it would be impossible to arrive at correct statistics. To improve the fisheries, it is suggested that the best means would be to supply the fishermen with a better description of boat and gear, and to send a properly qualified person to instruct the fishermen who might be obliged to repay by instalments the whole money advanced.	21
173	718	–	175	723	1	20	–	–	–	100	22	Boats sadly neglected; many of them rotting on the shore. No improvement or prospect of any. Emigration still going on, but it is thought the fishermen would not stay at home if employed. Last year less productive in take of fish than preceding. No natural oyster banks. Colonel Gore has been preparing the ground for which a licence has been granted. No oysters sold. No curing or ice houses. Fish sold in the fresh state. No conflicts; fishermen orderly and peaceable. Able-bodied engaged generally in fishing and agriculture. Registry perfect. Trawling does not exist as a regular mode of fishing; but Colonel Knox sometimes trawls in Killala Bay during the summer No contention can exist, as all the fishermen are line and herring net fishers. The trawling yacht is fourteen tons, and the trawl mesh about four and a half inches. What she captures is not sold. One hundred and seventy-three boats and curraghs, of 286 tons, engaged in line and net fishing. Fish sold in local markets. Pollack, bream, mackerel, turbot, soles, and plaice, best in summer months. Herrings best from September to November. Cod from November to January. The fish are believed to spawn generally on the banks off the coast in about thirty fathom water, on sandy bottom. The impediments to improvement are—the fish leaving the coast, the poverty of the people, and emigration.	22
125	535	10	126	539	10	22	–	–	–	15	4	No improvement in boats and gear or sign of any. No *bona fide* fishermen—the divided labour spoils them as fishermen. Most would emigrate if to better themselves. Take of fish much the same as preceding year. Oyster fishery not improving. There are two small natural banks in Ballisodare Bay, and one small private bank. Quality of oysters good; price 3*s.* per 100. No steps taken to stock the ground licensed. No curing or ice houses. No conflicts. Habits of the so-called fishermen orderly. Able-bodied employed in tillage, and fishing in fine weather if they can be spared. Registry considered imperfect. No trawling or trammel fishing. The very little fish caught not sent to market. No information as to spawning. Divided labour is the chief impediment to improvement.	23
106	543	10	111	560	10	–	–	–	2	29	34	General condition of boats and gear good; several new boats and much new gear. Fishery improving on the whole. Less emigration this year; but it is believed to be little affected by employment at home. A fair average year in take of fish. The oyster brood has been productive. Several great natural banks exist—Lissadill, Lower Rosses, Oyster Island, Ballyweelan, and Cummeen. Ballyweelan so swept last year that there is not an oyster worth taking now. Not an oyster left on Cummeen; the result of two years' plunder. The plunder of the Lissadill bank is now being carried on. The bank adjoining Finned licensed this year is being prepared for stock with all despatch. Lissadill oysters sold from £1 15*s.* to £2 10*s.* the 1,000; 350,000 sold. Three hundred and seventy-eight thousand sold from the other beds, at £1 5*s.* to £1 15*s.* the thousand. No curing or ice house. Fish sold in the fresh state. Instances of conflicts much the same. One conflict at Mullaghmore during the herring season; the Coast Guard got under arms, and the men dispersed. The very uncertain state of the law has caused frequent conflicts in protecting the oyster beds—hitherto without bloodshed. The Resident Magistrate was applied to by the fishermen to protect them from the attack of Sir	24

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed. in 1864.			Total employed in 1864.			1st Class employed. in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
25	Killybegs, .	From Donegal to Gweebarra Bar.	R. Edwards, Captain, R.N.	7	28	–	341	1,919	324	348	1,947	324	–	–	–
26	Rutland, .	From Gweebarra Bar to Bloody Foreland.	W. H. Neate, .	–	–	–	171	684	164	171	684	164	–	–	–
27	Sheephaven,	From Bloody Foreland to Fannet Point.	J. B. Bryan, .	–	–	–	282	1,117	147	282	1,117	147	–	–	–
28	Rathmullen,	From East side of Leenan Bay, West side of Fannet Point, to Lough Swilly, Ramelton.	C. T. Williamson, Lieutenant, R.N.	5	15	5	102	455	70	107	470	75	6	20	4

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
												R. G. Booth's men while they dredged on his beds. The conduct of the fishermen has been neither orderly nor peaceable, as proved by the continual raids on the oyster beds Registry perfect. The labours of the Coast Guard would be lessened if compulsory registration was more rigidly enforced. Trammel nets not used. Trawlers work at Rachley and Mullaghmore. Squabbles still existing between them and the line fishers. Trawling should not be permitted in harbours or shoal bays. The officer says, "I have uniformly reported my opinion, that trawling is destructive to the many kinds of fish which spawn in shoal water. They tear up the bottom grass, and disturb the spawning beds. I find this opinion endorsed by all my officers." A cutter of twenty tons and three hookers of six to eight tons trawl in four to twelve fathom water with a three-inch mesh. One trawl boat more than preceding year; 106 boats of 125 tons engaged in line fishing. Fish sold generally on the spot for local markets. Mackerel, horse mackerel, herrings, and glasson taken by seine from July to November; by line, codling and pollack from November to April; cod and haddock from middle of December to beginning of March—then in best condition; ling, February and March; turbot, sole, and plaice from April to September—best from May to August. Cod and ling are believed to spawn on sandy bottom in ten to fifteen fathom water, all flat fish in four to five fathoms, herrings in foul ground and deep water. The chief impediments to progress are the extraordinary diminution in quantities of fish on the coast of late years, and want of proper vessels to follow the fish to the deep sea. Statistical information could be obtained by employing experienced and trustworthy fishermen to collect it in the several localities—a work which the Coast Guard cannot perform. It is suggested that some restraints be put on trawling as to depth of water and locality. It is also obvious that unless a great alteration be made in the law with respect to oyster beds and protection of vested interests collisions and riots will assume a more serious aspect, and in a very few years oysters become extinct.	
368	2,049	324	368	2,049	324	20	102	–	–	–	–	No improvement or sign of it in boats and gear; present prospects not favourable. The people still emigrate, and it is not thought that full employment would prevent it. Last year less productive in take of fish, than the preceding, excepting salmon. Only some small rock oysters, which give a little employment to women. A Curing Establishment at Killybegs for preserving salmon, and one at Teelin for sea fish. No ice-house. No conflicts; fishermen orderly and peaceable. Very few (if any) persons solely employed in fishing. Registry perfect. No trawls or trammels. Believes that trawling, like ploughing the earth, throws up worms; and that improves rather than injures the fishery: witness Ballycotton Bay, where boats are continually trawling, and fish not deteriorated. Fish sold to cadgers, who take it inland. Skad, herrings, sprats, and small fry taken by seine; cod, ling, turbot, pollack, whiting, mackerel, gurnard, bream, hake, haddock by line. Cod, ling, and herrings best from 1st December to 1st March; turbot, 1st March to 1st June; skad, 1st June to 1st September; black pollack, 1st April to 1st July; white pollack, 1st April to 30th September; whiting, 1st July to 1st October; mackerel, 1st July to 1st September; bream, 1st June to 30th September; sprats, 1st June to 1st September; hake, 1st August to 31st October; gurnard, 1st July to 1st September; haddock, 1st September to 1st March. The chief impediments to improvement are indolence and the men being engaged in other occupations. It would be most difficult to obtain accurate statistics; it could not be done by the Coast Guard, as some stations are twenty-five miles in extent. Is decidedly of opinion that as a large quantity of small fish are killed by illegal nets, a heavy fine should be imposed for meshes under an inch.	25
98	300	57	98	300	57	–	–	–	73	384	107	A great falling off in boats and gear. No improvement, or sign of it. With the exception of lobsters, scarcely any fish taken. The men are fast emigrating. Last year less productive in take of fish than the preceding. No oyster fishery whatever or Curing Establishment; two ice-houses connected with the salmon fishery. No conflicts; fishermen very orderly. The able-bodied would be employed if there were any fish. Registry perfect, so far as it goes No trawling or trammel fishing. No fish caught this year except a few cod by line in autumn, and then in bad condition. The fish have entirely deserted the coast.	26
334	991	177	334	991	177	52	–	30	–	126	–	Boats and gear much the same; no improvement, or sign of it. Prospects bad. No emigration amongst the fishermen. Last year much less productive than preceding in the take of every kind of fish. No oyster fishery, Curing Establishment, or ice-house. Fish sold fresh. No conflicts; fishermen peaceable and orderly; able-bodied not generally employed in fishing. No trawling or trammel fishing. Chief impediments to improvement are poverty, bad boats, bad nets, and bad lines. Cannot suggest any means of obtaining reliable statistics.	27
147	440	140	153	460	144	46	–	69	–	10	–	No improvement or sign of it in boats and gear; their general condition worse. Emigration continues as usual. General take of fish less than preceding year. Oyster fishery nearly extinct, owing to the export to England and France of the very small oysters by several agents in Londonderry; and in Newtown one agent has been exporting upwards of 2,000 twice a week. No new banks have been discovered, nor have any licences been granted for private beds. The best beds lie along the south side to the west of the ferry at Fortstewart. Quality of the Lough Swilly oysters excellent; thirty years since these oysters were sold in considerable quantities in Londonderry, now they have nearly ceased to exist. Fish always sold fresh, owing to the small take. No Curing Establishment; one ice-house at Rathmelton. No conflicts; fishermen in general peaceable; their time divided between fishing and agriculture. A very bad feeling exists between the trawlers and line men, and between the Coast Guard and both parties; between the line fishers and the Coast Guard because the former are kept up to the letter of the law, and the trawlers are not prevented from fishing within their limits, which it is impossible to effect as the law at present stands, it being absolutely necessary to catch the trawl down. Recommends that a cruiser be stationed in Lough Swilly if possible. Trawling has existed for a considerable number of years inside the headlands, and much contention has taken place in consequence of the limits fixed by the by-law; the trawlers declaring that there is not sufficient ground allowed to make the fishing pay. Is of opinion that the ground should be extended to a line drawn from the Carrickallen rock, east side, to Killygarven, Blackrock, on the west side. If this were done there would be no poaching, and no necessity for a cruiser. Certainly thinks that trawling in shallow waters and over sandbanks must be injurious to the general fishing interests, by destroying the spawn and disturbing the fish that may be spawning, or weak fish taking refuge in the sea-grass. Trawlers of ten to twelve tons work in six to nine fathom water with a two and a half inch mesh; one additional trawl boat being built.	28

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed. in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
29	Carne,	From the Hawk's Nest, Inch, to Magilligan Point.	Hon. E. G. L. Cochrane, Commander, R.N.	23	92	23	374	1,496	374	397	1,588	397	11	34	–
30	Ballycastle,	From Downhill to Nappan.	H. C. Burleigh, Commander, R.N.	1	3	–	189	562	63	190	565	63	3	7	2
31	Carrickfergus,	From Mountain Stream, near Garron Point, to Belfast.	W. A. De V. Brownlow, Commander, R.N.	35	121	3	294	510	82	329	631	85	7	28	–
32	Donaghadee,	From Belfast to Newcastle Quay.	H. Fawkes, Commander, R.N.	85	360	28	595	1,109	193	680	1,469	221	78	318	26
33	Strangford,	From Newcastle Quay to Sheepland Head.	W. G. Douglas, Lieutenant, R.N.	10	25	7	95	251	43	105	276	50	2	9	1
34	Newcastle,	From Sheepland Cove to River Foot.	E. F. Lodder, Commander, R.N.	3	13	1	231	925	40	234	938	41	13	78	6

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
												No seine or trammel fishing. One hundred and forty-seven boats of from one to two tons engaged in line fishing. The trawl fish sent to Londonderry, the line fish sold in local markets. Plaice, sole, and dory taken by trawl; cod, ling, haddock, whiting, plaice, skate, sole, and dory by line. Plaice best August and September; cod, ling, skate, and haddock best in winter, worst about August. Herrings spawn amongst the sweet grass in winter; cod are supposed to spawn about Fortstewart beds up the Letterkenny river; the other kinds of fish spawn on the beds of the lough above Rathmullen. The chief impediment to improvement is scarcity of fish. It would be nearly impossible to obtain correct statistics, as the boats land the fish in so many places where there are no Coast Guards.	
235	1,142	150	246	1,176	150	–	–	–	151	412	247	Boats and gear much the same; no improvement. No emigration this year. Take of fish about the same as preceding year. Oyster fisheries good, but decreasing; three good oyster banks in Lough Foyle; none lately discovered; no private beds; price of oysters 4*s.* a hundred. No curing; fish sold fresh. Several ice-houses. No collisions; fishermen orderly and peaceable; they are mostly all small farmers. Registry complete. Trawling carried on in the Foyle and outside, and is much objected to by the proprietors of salmon fisheries. Opinions with respect to the effects of trawling very contradictory. Eleven vessels of ten to fifteen tons trawl in from two to eight fathom water; one trawler less than preceding year, but three new vessels to be employed next year. The fish captured sent to Liverpool and Glasgow. Soles, flat fish, and turbot taken by trawl; cod, haddock, whiting, and ling with line. The fish spawn in three fathom water and upwards on gravelly bottom and oyster beds. The chief impediment to progress is that the men prefer farming to fishing. Statistics could be obtained by making the boats land their fish at certain ports, where a registry might be kept. The surplus population have all emigrated, and of those that remain none trust to fishing as a means of livelihood.	29
200	548	47	203	555	49	13	–	–	–	10	14	A slight increase in number of boats, but no improvement in condition or sign of it. Prospects bad. No emigration. Take of fish decreasing. No oyster fisheries. No Curing Establishment. No conflicts; fishermen orderly and peaceable; the able-bodied combine fishing and farming. Registry perfect. No trawling. Two hundred boats averaging two tons engaged in other modes of fishing. Fish sold in local markets. Herrings, glasson, and bream taken by line; in best condition June to September; cod and ling best from December to April. Chief impediments to progress are decrease of fish, and farming being more profitable. Very difficult to obtain statistics, as the occupation of fishing is so irregular, and the boats so scattered along the coast.	30
168	406	115	175	434	115	–	–	30	154	197	–	Of the second class only ten boats and twenty men are constantly and regularly engaged in fishing. No improvement or sign of it in boats and gear. No emigration; but very few regular fishermen; those who fish are principally farmers and people who have other regular employment, but fish occasionally for their own use. Take of fish less than preceding year. There are natural oyster banks in Belfast Lough, which are not improving in supply. No private beds, and no new banks discovered. Quality of oysters good, and the price from 3*s.* to 10*s.* per 120. The quantity sold annually is estimated at 20,000. No curing or ice house. No collisions; the few regular fishermen are orderly and peaceable. Registry perfect. No trammel fishing; a little trawling about Carrickfergus; but no contention. Not enough of fishing of any kind to enable the officer to form an opinion as to the effects of trawling. Seven boats of forty-two tons engaged in trawling in from three to eight fathom water with a two and a half-inch mesh; trawlers less by two than preceding year; 155 boats occasionally engaged in seine and line fishing; their tonnage varies from a half to two tons. All fish caught is either consumed by the fishers or sold in local markets. Sole, turbot, and plaice taken by trawl, and in best condition in summer and autumn; whiting, pollack, cod, ling, and occasionally herrings by line; and in best condition in winter No reliable information as to spawning. The supply of fish is small, and the population principally employed in mills and factories. Statistics could be obtained by appointment of a proper superintendent, or by the fishermen being compelled to make regular reports to the Coast Guard.	31
598	1,114	176	676	1,432	202	–	–	–	4	37	19	No alteration in boats and gear; no sign of improvement; present prospects indifferent. No spirit of emigration. Very little difference in take of fish. The oyster bed is nearly broken up; there is but one natural bank, which is not improving in supply; no new natural bank discovered; no private beds; general quality of oysters not very good; price from 2*s.* to 3*s.* per hundred; about 340,000 sold in the year. No curing or ice house; fish sold in the fresh state. No conflicts; fishermen orderly and peaceable. Registry perfect. No trammels; trawling practised without contention Is of opinion that trawling has no effect upon the general fishing interests. Six boats of ten tons each trawl in seven to eight fathom water with four-inch mesh; number of trawlers same as last year. About 144 boats from one to three tons employed in line fishing. Fish sold in local markets. Plaice taken by trawl, and in good condition from 1st March to 1st October; cod taken by line, and in good condition from 1st November to 1st March. Flat fish spawn in shallow water on the banks, cod-fish in deep water. Impediment to progress is scarcity of fish. Cannot say how accurate statistics can be had.	32
67	146	12	69	155	13	–	–	–	36	121	37	Boats and gear on the decrease, and no sign of improvement. No emigration. Take of fish less than preceding year. One small oyster bed in the lough, but not worked. No curing or ice houses No conflicts; fishermen orderly and peaceable. No registry of boats. No trawling or trammel fishing. Fish sold in local markets. Cod, ling, whiting, pollack, herrings, and flat fish taken by hand and long lines. Nothing known as to spawning, or impediments to improvement.	33
248	996	37	261	1,074	43	27	136	2	–	–	–	Boats and gear bad, and no sign of improvement. A spirit of emigration prevails, but the men would gladly remain at home if fully employed or able to make a livelihood. Take of fish much the same as preceding year. No oyster beds of any kind. No curing or ice house; fish sold fresh. No conflicts; fishermen orderly and peaceable. Able-bodied generally employed in fishing. Registry perfect No trawling or trammel fishing. Is of opinion that trawling injures the spawn and feeding ground, and also the fishermen, by carrying away their long lines; 110 boats, of 136 tons, employed in line fishing. Fish sold in local markets. Whiting, haddock, and small cod taken by line, and in best condition from October to March; flat fish taken by line, and in best condition from March to October. Round fish spawn in from twenty to thirty fathoms water, on hard ground; flat fish close in shore, in sand. Scarcity of fish chief impediment to improvement; the men are not able to make a livelihood. Statistics could be had by appointing a man at each port to attend the boats morning and evening.	34

STATE of the REGISTRY of FISHING VESSELS on the COAST of IRELAND to 1st January, 1866, pursuant to the

No.	NAME OF DISTRICT.	BOUNDARIES.	Registering Officer.	1st Class employed in 1864.			2nd Class employed in 1864.			Total employed in 1864.			1st Class employed in 1865.		
				Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.
35	Carlingford,	From River Foot to Ballagan Point.	R. B. Graham, Commander, R.N.	2	12	–	150	488	–	152	500	–	1	4	–
36	Dundalk, .	From Maiden Tower, near Drogheda, to Omeath.	W. F. Irwin, Commander, R.N.	6	39	3	160	1,042	21	166	1,081	24	8	48	2
37	Malahide, .	From South side of mouth of Boyne to Howth.	V. O. Inglefield, Commander, R.N.	65	420	47	38	144	16	103	564	63	72	462	64
38	Howth, .	From Howth to Whip of Water.	C. W. Hughes, Master, R.N.	31	201	26	9	36	3	40	237	29	36	216	36
			Total, . . .	978	4,559	475	8,322	32,857	3055	9,300	37,416	3530	929	4,380	424

APPENDIX, No. 2.

QUANTITY of FISH conveyed by RAILWAYS between 1859 and 1866.

Railway.	1860.	1861.	1862.	1863.	1864.	1865.
	Tns. Cwts. qrs. lbs.	Tns. Cwts. qrs. lbs.	Tns. Cwts. qrs.	Tns. Cwts.	Tns. Cwts. qrs. lbs.	Tns. Cwts. qrs. lbs.
Great Southern and Western, .	775 0 0 0	763 0 0 0	1,145 0 0	1,249 0	1,642 0 0 0	1,898 0 0 0
Midland Great Western, . .	833 17 0 0	756 12 3 0	785 14 2	1,189 13	697 2 3 0	497 9 1 9
Dublin and Drogheda, . .	390 1 2 22	842 14 3 0	1,004 5 1	1,329 0	1,976 14 2 0	1,226 14 0 0
Waterford and Limerick, . .	—	351 17 1 27	374 0 0	319 15	140 2 0 0	127 8 3 27
Dublin, Wicklow, and Wexford,	—	—	—	—	1,060 18 0 0	2,118 15 2 0
Cork and Bandon, ...	—	—	—	—	836 2 2 3	713 16 3 8

Dublin, Wicklow, and Wexford—Increase thus:—

	Tons.		Tons.	
1864, . .	542	Herrings.	513	Oysters.
1865, . .	1,066	,,	1,012	,,

Cork and Bandon—122 tons less in 1865 than 1864, arising from increase in direct shipment of Mackerel to England.

Midland Great Western—Increase or Decrease arises thus:—

	Tons.		Tons.		Tons.	
1862,	197	coarse and fine fish.	422	Oysters.	–	Winkles.
1863,	473	,,	536	,,	50	,,
1864,	86	,,	253	,,	219	,,
1865,	127	,,	229	,,	–	,,

Dublin and Drogheda—750 tons less in 1865 than in 1864, chiefly arising from decrease in take of Herrings at Howth, and increase in traffic seaward.

No. 1—*continued.*

5th and 6th Vict., cap. 106, showing the Increase or Decrease in the different Districts since January, 1865.

2nd Class employed in 1865.			Total employed in 1865.			Increase since 1864.			Decrease since 1864.			Substance of Observations made by Inspecting Commanders of Coast-Guards and other Registering Officers, up to the 1st January, 1866.	No.
Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.	Vessels.	Men.	Boys.		
304	1,197	14	305	1,201	14	153	701	14	–	–	–	Boats and gear very indifferent; no sign of improvement whatever. No emigration. Take of fish less than preceding year. Oyster fishery not so productive as preceding year, but oysters improved in quality. Quality of oysters good; sold generally by the dredgers at £2 per 1,000; sold by retail at 4*s.* to 6*s.* per hundred. No curing or ice house; fish sold fresh. No conflicts whatever; fishermen very orderly and peaceable. Very few able-bodied fishermen in this locality. Registry perfect. No trawling or trammel fishing. Fish taken by line only, and is generally sold in the neighbourhood and consumed at home. Cod, ling, fluke, and skate are the only fish taken. A few herrings are caught in November and December, but in very bad condition. Scarcity of fish and want of inclination are the chief impediments to improvement. Statistics can be obtained in no other way than by the appointment of proper persons for this duty in the different localities, and imposing a fine on all fishermen not reporting to the appointed officers the quantity of fish taken.	35
151	627	36	159	675	38	–	–	14	7	406	–	Boats and gear much the same; no improvement. Emigration still prevails, but fishermen would remain at home if fully employed. Take of fish much the same as preceding year. No oyster fishery. No curing or ice house. No conflicts; fishermen peaceable and orderly. The able-bodied men generally employed in fishing. Registry perfect. Trawling practised off Clogher Head without contention with line fishers. Considers trawling injurious to spawn. Two boats, of fifteen to twenty tons each, trawl at Clogher Head with a three-inch mesh. Number of trawlers same as preceding year. About 150 boats, of half a ton to two tons, engaged in seine and line fishing. Fish sold in the local markets. Plaice and sole taken by trawl; in good condition in autumn; salmon by seine, from March to July; cod, plaice, and haddock by line, from 1st August all through the winter. The fish are supposed to spawn in from three to thirty fathom water on a gravelly or sandy bottom. Chief impediment to progress is want of capital to procure a better class of boats and gear. Cannot suggest a means for obtaining correct statistics.	36
43	172	21	115	634	85	12	70	22	–	–	–	Herring fishery improved; other fishing declined. Boats and gear much the same as preceding year. Fishermen would remain at home if fully employed. Take of fish less than preceding year. No great natural oyster banks. One licensed bed, but no steps taken to stock the ground. Quality of oysters good; price, 5*s.* per hundred; 100,000 sold within the year. Two Curing Establishments at Rush; no ice-house; fish sold in the fresh state. No conflicts; fishermen orderly and peaceable; many of them go into the coasting trade during the winter. Registry perfect. Trawling practised without contention off Skerries and Balbriggan by Ringsend and Balbriggan boats; they are from eighteen to twenty-nine tons, and work in from nine to eighteen fathom water with a four and a half-inch mesh. Number of trawlers rather less than preceding year. Eight boats, from two and a half to twenty-seven tons, engaged in line fishing. Trawl fish sent to Dublin market; line fish sold in local and Dublin markets. Cod, ling, skate, turbot, plaice, and soles captured by trawl; trout, bass, herrings, cod, ling, hake, and skate by seine and line. Cod best December to May; ling June to November. Want of sufficient funds is in some cases the chief impediment to improvement. Statistics could be obtained through the owners of fishing vessels.	37
3	12	–	39	228	36	–	–	7	1	9	–	Boats and gear improving, and prospects still improving. No emigration. Take of fish less than in preceding year. No oyster fishery. No Curing Establishment. Fish has been cured on the open quays, but the herrings are chiefly sold fresh. No conflicts; fishermen orderly and peaceable. The able-bodied all employed in fishing. Registry perfect. No trawling within the limits of this district, but frequent complaints are made by the line fishers having their gear carried away by trawlers. Is of opinion that trawling is injurious to the general fishing interests, from the disturbance and destruction of fry and small fish. The only fishery of any consequence is the herring; this fish in good condition from June to November. Accurate statistics can be obtained as at present through the Coast Guard. Thinks it very necessary for the preservation of order that a steamer or cutter should attend the herring fleet.	38
8,060	30,804	2312	8,989	35,184	2736	800	3,066	283	1,111	5,298	1077	Total Decrease, Vessels. 311 Men. 2,232 Boys. 794 in 1865 as compared with 1864.	

Appendix, No. 2—*continued.*

Great Southern and Western Railway.

Return of all Fresh Fish conveyed over the Great Southern and Western Railway during the year 1865.

	Tons.		Tons.
Salmon,	280	Hake,	15
Cod,	7	Flat Fish,	74
Haddock,	27	Eels,	22
Herrings,	328	Fresh Fish not named in Invoice,	85
Shell Fish,	149		
Mackerel,	911	Total,	1,898

Dublin and Drogheda Railway.

Return of Fish conveyed over this Line to Dublin for the year ended 31st December, 1865.

	Tons.	Cwt.		
From Balbriggan,	55	15	Herrings, 4*s.* 2*d.*	per ton.
„ Drogheda,	10	16	Fish, 9*s.* 8*d.*	„
„ Howth,	1,103	4	Herrings, 3*s.* 7*d.*	„
„ Rush,	6	0	Fish, 3*s.* 2*d.*	„
„ Skerries,	50	19	Herrings, 3*s.* 7*d.*	„
	1,226	14		

APPENDIX, No. 2—*continued.*

MIDLAND GREAT WESTERN RAILWAY of IRELAND.

Return of Fish conveyed over the Line during the year 1865.

COARSE FISH.

Forwarding Station.	No. of Boxes.	Rate.	Weight. Tons	cwts.	qrs.	lbs.
Galway,	1,460	25*s.* 0*d.* per ton.	91	3	2	11
Sligo,	169	25*s.* 0*d.* „	11	13	1	7
Oranmore,	167	25*s.* 0*d.* „	14	8	2	16
Castlebar,	80	30*s.* 0*d.* „	6	5	1	11
Castlerea,	52	25*s.* 0*d.* „	3	6	0	7
			126	16	3	24

OYSTERS.

Galway,	18	25*s.* 0*d.* per ton.	1	14	1	0
Oranmore,	1,296	25*s.* 0*d.* „	191	17	0	15
Sligo,	368	24*s.* 6*d.* „	35	9	2	6
			228	17	3	21

SALMON.

Forwarding Station.	No. of Boxes.	Rate.	Weight. Tons	cwts.	qrs.	lbs.
Galway,	527	2*s.* 0*d.* per cwt.	53	12	0	2
Sligo,	590	2*s.* 6*d.* „	30	2	1	19
Ballisodare,	252	2*s.* 6*d.* „	17	0	2	19
Collooney,	10	2*s.* 6*d.* „	0	18	1	6
Castlebar,	162	2*s.* 6*d.* „	11	1	0	12
Castlerea,	129	2*s.* 0*d.* „	4	3	2	12
			86	18	0	14

LOBSTERS.

Galway,	1,729	30*s.* 0*d.* per ton.	54	16	0	24

WATERFORD and LIMERICK RAILWAY.

Return of Fish forwarded from Stations on the Waterford and Limerick Railway, *via* Dublin and Waterford, year ending 31st December, 1865.

Description.	*Via* Waterford. Tons	cwts.	qrs.	lbs.	Rate per Ton. £	*s.*	*d.*	*Via* Dublin. Tons	cwts.	qrs.	lbs.	Rate per Ton. £	*s.*	*d.*	To Waterford only. Tons	cwts.	qrs.	lbs.	Rate per Ton. £	*s.*	*d.*
Salmon,	31	3	0	0	6	10	0	65	8	1	3	7	0	0	0	10	1	0	2	0	0
Eels,	29	3	0	0	6	10	0		—			—				—					
Shellfish,		—				—			—			—			1	4	2	24	1	10	0

Total, . . 127 tons, 8 cwt. 3 qrs. 27 lbs.

DUBLIN, WICKLOW, and WEXFORD RAILWAY.

Tonnage of Fish for the year 1865.

	Tons.	cwt.	qrs.	Rate charged.
Cod,	8	16	2	8*d.* per cwt.
Coarse Fish,	18	9	3	
Herrings,	1,065	3	2	
Oysters,	1,011	14	0	
Salmon,	3	3	2	
Ling,	11	8	1	6*d.* per cwt.
	2,118	15	2	

CORK and BANDON RAILWAY.

Return of Fish booked from Kinsale to undermentioned Stations for 1865.

CORK.

		Tons	cwts.	qrs.	lbs.
Mackerel,	5*s.* per ton.	477	3	1	5
Herrings,	„	23	14	2	25
Sprats,	„	25	4	2	22
Hake,	„	71	9	2	16
Haddock,	„	1	4	2	18
Cod,	„	28	2	0	26
Ling,	„	4	7	2	13
Plaice,	„	0	2	0	14
Turbot,	„	3	8	2	19
Scad,	„	1	8	1	0
Pilchards,	„	4	19	3	21
Whiting,	„	0	1	3	7
Lobsters,	„	0	14	1	2
Oysters,	„	1	1	0	14
Total to Cork,		643	3	0	6

DUBLIN.

		Tons	cwts.	qrs.	lbs.
Mackerel,	27*s.* per ton,	39	4	2	3
Herrings,	„	0	17	3	17
Hake,	„	14	3	3	16
Haddock,	40*s.* „	3	15	2	4
Cod,	27*s.* „	4	11	3	3
Turbot,	40*s.* „	1	4	2	17
Lobsters,	„	6	15	1	26
Total to Dublin,		70	13	3	2
Total Cork and Dublin,		713	16	3	8

APPENDIX, No. 3.

ABSTRACT of BY-LAWS, ORDERS, &c., made by the COMMISSIONERS OF FISHERIES IN IRELAND, to 31st December, 1865.

Place affected by By-Law, and Date thereof.	Nature of By-Law.
	TRAWLING.
Dublin Bay, . . (10th Oct., 1842.)	Prohibiting Trawling inside lines drawn from the Bailey Light-house at Howth, to the Eastern-most point of the rocks called the "Mugglins;" thence by a straight line to the Southern point of Dalkey Island; thence by a straight line across Dalkey Sound, in the direction of the signal station on Killiney Hill.
East Coast, . . . (14th Feb., 1851.)	Prohibiting Trawling within a line drawn from the Nose of Howth, to the Eastern point of St. Patrick's Island (Skerries); thence to Clogher Head; thence to Dunany Point; thence to Cranfield Point, in the County Down.
Dundrum Bay, &c., (3rd Dec., 1851.)	Prohibiting Trawling from Hellyhunter Rock, off Cranfield Point, to St. John's Point, both in the County Down.
Belfast Lough, . (25th Oct., 1854, and 16th Feb., 1857.)	Prohibiting Trawling within a straight line drawn from the Castle of Carrickfergus, to Rockport, in the County Antrim, altogether from 1st December to 1st April, and the use of Nets of less mesh than one and three-quarter inches from knot to knot (except Draft Nets for Herrings).
Lough Swilly, . (27th June, 1844.)	Prohibiting Trawling within a line from Knockalla Battery on the West side, to Linsfort Church on the East side of the Lough.
Donegal Bay, . (16th Feb., 1857.)	Prohibiting Trawling within a straight line from the Bian Rock, to a place called Doorin Point; and from a place called the Blind Rock, to the Northern point of the Townland of Rossnowlagh, Lower; and from thence to Kildoney Point; and from thence to a place called Pointinchose.
Galway Bay, . . (22nd March, 1843, and 9th Jan., 1854.)	Prohibiting Trawling within a line from Barna Pier to Gleninagh Castle. Also when large shoals of Herrings shall have set in in the Bay, and while Boats are engaged in Drifting for Herrings or Mackerel, and when Boats shall commence Fishing for Herrings or Mackerel, that Trawl Boats shall keep at a distance of three miles from them.
Brandon Bay, . (23rd Aug., 1860.)	Prohibiting Trawling within a line drawn from Brandon Point to Coosanea.
Dingle Bay, . . (2nd March, 1852, and 28th Jan., 1862.)	Prohibiting Trawling within a straight line from Bull's Head, near Dingle, to Cununna, near Valentia. Repealing By-Law prohibiting Trawling.
Bantry Bay, . . . (27th March, 1858.)	Prohibiting Trawling within a straight line from Crowdy Point to Carrigskye Rock; and from thence to Reenavanny Point, on the North Shore of Whiddy Island. Prohibiting Trawling between sunset and sunrise.
Glandore Harbour, (11th Sept., 1861.)	Prohibiting Trawling between the 1st day of May and the 1st day of October in each year, within that part of the Harbour of Glandore lying to the northward of a straight line from the Telegraph or Signal Tower at "Foilnashark," or "Filenashawk," on the north-eastern point of the entrance to the Harbour, and Sheela Point, on the western shore.
Waterford Harbour, (2nd March, 1852, and 18th June, 1860.)	Prohibiting Trawling by Boats exceeding five tons measurement, within a line drawn from Creden Head to Temple Church.
Wexford Coast, . (20th April, 1849.)	Prohibiting Trawling in all places where there are Boats engaged in Herring or Mackerel Drift Net Fishing; and that Trawl Boats shall keep at a distance of at least three miles from all boats fishing for Herrings or Mackerel, with Drift Nets. And whenever Herring or Mackerel Boats shall commence Drift Net Fishing in any place, on or off the Coast of Wexford, the Trawl Boats shall depart therefrom, and keep at least three miles distant from the Drift Net Herring or Mackerel Boats.
Estuary of Kenmare River, (10th Nov., 1865.)	Prohibiting Trawling within the Estuary of the Kenmare River, in the County of Kerry, and eastward or inward of a line drawn from Herring Rocks on the north to Feorus Point on the south, from the hour of Three o'Clock in the Afternoon of any one day to the hour of Nine o'Clock in the Morning of the day next following, during the months of October, November, December, January, February, and March, in any year (being the periods within which the use of Trammel and other Moored Nets for the capture of Sea Fish within the Estuary of the Kenmare River has been duly authorized and permitted); and from the hour of Five o'Clock in the Afternoon of any one day to the hour of Seven o'Clock in the Morning of the day next following, during the months of April, May, June, July, August, and September, in any year (being the further periods within which the use of Trammel and other Moored Nets for the capture of Sea Fish within the Estuary of the Kenmare River has been duly authorized and permitted.)
	TRAMMEL NETS.
Dungarvan Bay, . (4th July, 1849.)	Prohibiting the use of Trammel and every other Fixed or Moored Net (except Bag or other Nets for the taking of Salmon) in Dungarvan Bay, within the limit formed as follows, namely, the space lying between a line passing due East and West, through the Northernmost point of Helvick Head, and a line passing due East and West through the Southernmost point of Ballinacourty Head, in the Co. Waterford; but to the North and East of the line through Ballinacourty Head, and to the South and West of the line through Helvick Head, such Trammel or Moored Nets may be set, and remain set in the water from Three o'Clock, p.m., of one day, until Nine o'Clock, a.m., in the following day, during January, March, October, November, and December in each Year; and from Five o'Clock, p.m., of one day, to Seven o'Clock, a.m., in the following day, during May, June, July, August, and September. Also prohibiting such Nets athwart or within 200 yards of any boat, which at the time of setting such net shall be moored, and the Crew thereof engaged in Line Fishing; and to every train of such Trammel or Moored Nets shall be attached at least one floating buoy or board, upon which shall be painted in legible characters not less than one inch in length, in white upon a black ground, the Letter of the District, and the name of the Owner to which such Net belongs.
Inver Bay, . . (24th Sept., 1860.)	Prohibiting the use of Trammel Nets within or to the North-east of a line drawn from the Mouth of the Bunlaghy River to Doorin Point.
River Slaney, Co. Wexford, (25th March, 1854, and 4th March, 1862.)	Prohibiting, during the Close Season for Salmon, the use of Nets of any kind whatsoever, between Ferrycarrig Bridge and the Town of Enniscorthy. Prohibiting, during the Open Season for Salmon, the use of Nets with meshes of less size than one and three-quarter inches from knot to knot, between Ferrycarrig Bridge and the Town of Enniscorthy.
River Lee, Co. of the City of Cork, (7th Jan., 1863.)	Prohibiting, during the Close Season for Salmon, the use of Draught Nets, or any other Net or Nets used as a Draught Net, having a foot-rope and leads or weights affixed thereto, within the following limits, viz.:—in that part of the River Lee, situate between Patrick's Bridge, in the City of Cork, and a line drawn across the said River Lee, from Blackrock Castle, on the South, to the Western extremity of the Townland of Dunkettle, on the North.
Argideen River, . (24th Feb., 1860.)	Prohibiting the use of Nets of any kind whatsoever in the tidal part of the river known as the Argideen River, in the County of Cork, situated between the junction of the Owenkeagh or Blind River with the said Argideen River and the Bridge of Timoleague, all in the Barony of the East Division of East Carbery, and County of Cork.
River Shannon, . (5th Feb., 1856.)	Prohibiting Net Fishing in that part of the River Shannon between Wellesley Bridge and the Railway Bridge, between 1st June and 12th February.
River Shannon, . (22nd Nov., 1862.)	First.—Prohibiting, between the 20th day of July and 1st day of November in each year, the use of Draught Nets, or any other Net or Nets used as a Draught Net, having a foot-rope and leads or weights affixed thereto, within the following limits, viz.:—in that part of the River Shannon situate between the Fishing Weir known as the Lax Weir, and a line drawn due North and South across the said River Shannon at the Western extremity of Graigue Island. Second.—Prohibiting Draught Nets for the capture of Fish of any kind, of a mesh less than one and three-quarter inches from knot to knot, to be measured along the side of the square, or seven inches, to be measured all round each such mesh, such measurements being taken in the clear when the Net is wet, in the tidal parts of the River Shannon, or in the tidal parts of any of the Rivers flowing into the said River Shannon.
Lough Ree, River Shannon, (27th August, 1853.)	Permitting the use of Nets in Lough Ree, having a mesh of five inches in the round measured when the Net is wet.

APPENDIX, No. 3—*continued.*

ABSTRACT of BY-LAWS, ORDERS, &c., made by the COMMISSIONERS OF FISHERIES IN IRELAND, to 31st December, 1865.

Place affected by By-Law, and Date thereof.	Nature of By-Law.
Castlemaine Estuary, (27th Oct., 1858.)	Prohibiting, during the Salmon Close Season, the use of Draft Nets having a foot-rope and leads or weights affixed thereto, in the Estuary of Castlemaine inside the Bar of Inch.
Lough Neagh, (22nd April, 1846, and 24th Feb., 1860.)	Permitting Pollen to be taken by Trammel or Set Nets composed of Thread or Yarn of a fine texture, not less than ten hanks to the pound weight, doubled and twisted with a mesh of not less than one inch from knot to knot, from the 1st of March to the 29th September.
Galway River, Lough Corrib, &c., (24th July, 1846.)	Prohibiting the use of the Instrument, commonly called Strokehaul or Snatch, or any other such instrument, in River Galway, Loughs Corrib or Mask, or their Tributaries.
Clare and Clare-Galway or Turloughmore Rivers, Co. Galway, (22nd Dec., 1862.)	Prohibiting the use of Nets of any kind whatsoever in any part of the Rivers known as the Clare and the Clare-Galway or Turloughmore Rivers, in the County of Galway, above the junction of the said Rivers with Lough Corrib, in the County of Galway.
Teelin Estuary, (24th Feb., 1860.)	Prohibiting the use of Nets for the capture of Fish of any kind, with meshes of less than one inch from knot to knot (to be measured along the side of the square, or four inches to be measured all round each such mesh, such measurements being taken in the clear when the Net is wet), on that part of the coast of the County of Donegal inside, or to the North-east and North of lines drawn from Rossan Point to Teelin Head, and from Teelin Head to Carrigan Head, and from Carrigan Head to Muckross Point, all in the Barony of Bannagh, and County of Donegal.
Kenmare River Estuary, (31st Dec., 1864.)	Within the Estuary of the Kenmare River, in the County of Kerry, and eastward of a line drawn from the western point of Lamb's Head to the western point of Cod's Head, the use of Trammel and other Moored Nets for the capture of Sea Fish is authorized and permitted, from the hour of Three o'Clock in the Afternoon of any one day to the hour of Nine o'Clock in the Morning of the day next following, during the months of October, November, December, January, February, and March, in each year; and from the hour of Five o'Clock in the Afternoon of any one day to the hour of Seven o'Clock in the Morning of the day following, during the months of April, May, June, July, August, and September.
	OYSTERS.
Coasts of Wicklow and Wexford, (22nd April, 1846.)	Permitting, during the month of May, the Dredging for Oysters from any of the Public Beds below level of lowest water of Spring Tides, on that part of the Coast between Wicklow Head and Raven Point, north of Wexford Harbour, for the purpose of replenishing and supplying Artificial Oyster Beds or Layings, or other Beds or Layings, the exclusive property of any person, *but for no other purpose whatever.*
Wexford Coast, (8th April, 1862.)	First.—All persons engaged in fishing for or taking Oysters off the said Wexford Coast, south of Raven Point, shall cull all such Oysters as may be taken or caught; and shall not remove from any Fishing Ground or Oyster Bed any Oyster of less dimensions than three inches, at the greatest diameter thereof, and shall immediately throw back into the Sea all Oysters of less dimensions than aforesaid, as well as all gravel and fragments of shells as shall be raised or taken while engaged in such fishing; and no person shall take from any Oyster Bed, Rock, Strand, or Shore, off said Wexford Coast, south of Raven Point, any Oyster of less dimensions than three inches, at the greatest diameter thereof; and any person offending in any respect against this By-Law, Rule, or Regulation shall, for each offence, forfeit and pay a sum of Two Pounds. Second.—All persons are hereby prohibited from throwing into the Sea, on any Oyster Bed, or Oyster Fishing Ground off the said Wexford Coast, the ballast of any boat, or any other matter or thing injurious or detrimental to the Oyster Fishery; and all persons acting contrary hereto shall, for each offence, forfeit and pay a sum of Two Pounds.
South-east Coast of Ireland, from Wicklow Head to Carnsore Point, (11th April, 1865.)	That the Close Time, during which it shall not be lawful to dredge for, take, catch, or destroy any Oysters or Oyster brood, on or off the south-east coast of Ireland, between Wicklow Head and Carnsore Point, shall be between the 30th April and the 1st October in each year.
Cork Harbour, (28th Oct., 1853.)	First.—That between the 1st May and 1st September, no boat shall have on board any dredge or other implement for taking Oysters. Second.—Every fisherman shall, on the fishing ground, cull all Oysters, and shall not remove any Oyster of less dimensions than two and a-half inches at the greatest diameter thereof; and shall throw back into the Sea all gravel and fragments of shells as he shall raise while engaged in such fishing. Third.—All persons are prohibited from throwing into the Sea, on any Oyster Bed or Oyster Fishing Ground, the ballast of any boat, or any other matter or thing injurious to the Oyster Fishery. Fourth.—No person shall, between Sunset and Sunrise, dredge for, take, or catch any Oysters within the Harbour of Cork.
Tralee Bay, (28th Sept., 1860.)	First.—That between the 1st day of April and the 1st day of November in any year, being the Close Season for Oysters in the said Bay of Tralee, no boat, in the said Bay of Tralee, shall have on board any dredge or other implement for the taking of Oysters; and if, between the periods aforesaid, there shall be on board any boat any such dredge or other implement for the taking of Oysters, the master or owner of such boat shall, for each such offence, forfeit and pay a sum of Five Pounds. Second.—All persons engaged in fishing for or taking Oysters in said Bay of Tralee, shall cull all such Oysters as may be taken or caught; and shall not remove from any fishing ground or Oyster Bed any Oyster of less dimensions than two inches and one-half, at the greatest diameter thereof, and shall immediately throw back into the Sea all Oysters of less dimensions than aforesaid, as well as all gravel and fragments of shells as shall be raised or taken while engaged in such fishing; and no person shall take from any rock, strand, or shore of said Bay of Tralee, any Oyster of less dimensions than two inches and one-half, at the greatest diameter thereof; and any person offending in any respect against this By-Law, Rule, or Regulation shall, for each offence, forfeit and pay a sum of Two Pounds. Third.—All persons are hereby prohibited from throwing into the Sea, on any Oyster Bed, or Oyster Fishing Ground in the said Bay of Tralee, the ballast of any boat, or any other matter or thing injurious or detrimental to the Oyster Fishery; and all persons acting contrary hereto shall, for each offence, forfeit and pay a sum of Two Pounds.
Achill Sound, Clew Bay, & Blacksod Bay, (15th Dec., 1860.)	First.—That between the 1st day of April and the 1st day of October in any year, being the Close Season for Oysters in said Clew Bay, Achill Sound, and Blacksod Bay, no boat, in the said Clew Bay, Achill Sound, and Blacksod Bay, shall have on board any dredge or other implement for the taking of Oysters; and if, between the periods aforesaid, there shall be on board any boat any such dredge or other implement for the taking of Oysters, the master or owner of such boat shall for each such offence, forfeit and pay a sum of Five Pounds. Second.—All persons engaged in fishing for or taking Oysters in said Clew Bay, Achill Sound, and Blacksod Bay, shall cull all such Oysters as may be taken or caught; and shall not remove from any Fishing Ground or Oyster Bed any Oyster of less dimensions than two inches and one-half, at the greatest diameter thereof, and shall immediately throw back into the Sea all Oysters of less dimensions than aforesaid, as well as all gravel and fragments of shells as shall be raised or taken while engaged in such fishing; and no person shall take from any rock, strand, bed, or shore of said Clew Bay, Achill Sound, and Blacksod Bay, any Oyster of less dimensions than two inches and one-half, at the greatest diameter thereof; and any person offending in any respect against this By-Law, Rule, or Regulation shall, for each offence, forfeit and pay a sum of Two Pounds. Third.—All persons are hereby prohibited from throwing into the Sea, on any Oyster Bed, or Oyster Fishing Ground in said Clew Bay, Achill Sound, and Blacksod Bay, the ballast of any boat, or any other matter or thing injurious or detrimental to the Oyster Fishery; and all persons acting contrary hereto shall, for each offence, forfeit and pay a sum of Two Pounds. Fourth.—No person shall, between sunset and sunrise, dredge for, take, or catch, any Oysters within said Clew Bay, Achill Sound, and Blacksod Bay; and every person acting contrary hereto shall, for each offence, forfeit and pay a sum of Five Pounds.

APPENDIX, No. 3—*continued.*

ABSTRACT of BY-LAWS, ORDERS, &c., made by the COMMISSIONERS OF FISHERIES IN IRELAND, to 31st December, 1865.

Place affected by By-Law, and Date thereof.	Nature of By-Law.	Place affected by By-Law, and Date thereof.	Nature of By-Law.
Clew Bay, County Mayo. (1st April, 1865.)	That, for the sole purpose of replenishing and supplying licensed Oyster beds and other Oyster beds, the exclusive property of any person or persons within Clew Bay alone, in the County of Mayo, and for no other purpose whatever, it may be lawful for any person to dredge for and take Oysters from any natural public bed in the said Clew Bay lying below the level of the lowest water of spring tides, between the 1st and 15th April and the 20th June and 1st October in each year, such periods being respectively included within the Close Time at present fixed for the Oyster fisheries within the said Clew Bay: Provided always, that if any Oysters dredged or taken during such part of the Close Season shall be brought to shore, or sold or offered for sale, or be found in the possession of any person on land, or be used for any other purpose than the replenishing or supplying any such artificial or other bed as aforesaid, every person so offending shall forfeit all such Oysters, and be subject and liable to the same penalties and forfeitures as by said first-recited Act (5 and 6 Vic.) prescribed in cases of offences against the provisions of the said first-recited Act for the observance of the Close Season in respect of Oysters.		
Carlingford Lough, (17th April, 1860.)	First.—That between the 1st day of March and 1st day of November in any year, it shall not be lawful for any person to dredge for, take, catch, or destroy any Oysters or Oyster Brood within the said Lough of Carlingford, or off or from any of the shores or rocks of said Lough, and any person offending against this By-Law shall, for each such offence, forfeit and pay a sum of Five Pounds.		Second.—That between the 1st day of March and the 1st day of November in any year, no boat, in the said Lough of Carlingford, shall have on board any dredge or other implement for the taking of Oysters; and if, between the periods aforesaid, there shall be on board any boat any such dredge or other implement for the taking of Oysters, the master or owner of such boat shall, for each such offence, forfeit and pay a sum of Five Pounds. Third.—All persons engaged in fishing for or taking Oysters in said Lough of Carlingford, shall cull all such Oysters as may be taken or caught; and shall not remove from any Fishing Ground or Oyster Bed any Oyster of less dimensions than two inches and one-half, at the greatest diameter thereof, and shall immediately throw back into the Sea all Oysters of less dimensions than aforesaid, as well as all gravel and fragments of shells as shall be raised or taken while engaged in such fishing: and no person shall take from any rock, strand, or shore of said Lough of Carlingford, any Oyster of less dimensions than two inches and one-half, at the greatest diameter thereof; and any person offending in any respect against this By-Law, Rule, or Regulation shall, for each offence, forfeit and pay a sum of Two Pounds. Fourth.—All persons are hereby prohibited from throwing into the Sea, on any Oyster Bed, or Oyster Fishing Ground in the said Lough of Carlingford, the ballast of any boat, or any other matter or thing injurious or detrimental to the Oyster Fishery; and all persons acting contrary hereto shall, for each offence, forfeit and pay a sum of Two Pounds.

APPENDIX, No. 4.

ABSTRACT of RETURNS of HERRING FISHERY at DUNMORE EAST, WATERFORD.

Date. Week ending—	Average daily Number of Boats employed.				Number of Mease of 635 Fish each.	Average Price per Mease.	Gross Receipts.	Number of Days employed.
	Cornish.	Scotch.	Manx.	Irish.		£ s. d.	£ s. d.	
1865.—June 3, ...	2	30	3	65	3,600	1 0 0	3,600 0 0	6 days.
,, 10, ...	2	30	3	65	3,600	1 0 0	3,600 0 0	6 ,,
,, 17, ...	2	30	3	65	1,800	1 0 0	1,800 0 0	3 ,,
					9,000		9,000 0 0	

OBSERVATIONS.

June 13th, 1865.—A fleet of herring boats came to fish at Dunmore; the first of them came in the last week of May, 1865, and remained about a fortnight, when nearly all left on the 13th June for Arklow. There were over 100 sail here at one time, in about the proportions stated in the columns. The fish were very fine, but so rich as to render it difficult to cure in the very hot weather which prevailed while the boats were at Dunmore. The boats killed from four to sixteen mease a night each; the average price about 20*s.* a mease; 635 fish in a mease.

June 20th, 1865.—Since my last report, on the 13th inst., we have had only one herring boat fishing here. She is a Lowestoft lugger called the *Champion*. She shot her nets three times, and killed altogether twenty-four mease of fish, which she sold at 16*s.* a mease. Her crew have told me that in their lives they never saw such an appearance of fish as there is at present in the channel off here. One of the hands, a most intelligent man, remarked that the quantity of fish scales, &c., in their nets made them look "as if laced with silver." Waterford harbour, on yesterday, was actually alive with porpoises, scud hounds, and thrashers, following the herrings and bait.

P.S.—I am satisfied the *Champion* would have killed much more fish than she did last week but for the calm weather that generally prevailed.

June 27th, 1865.—There has been only one herring boat here for the last week, the *Champion* of Lowestoft. She had three fishings during that time, and killed about seventy mease of fish altogether, the price varying from 20*s.* to 15*s.* 6*d.* a mease. The fish was of fine quality and in great abundance off this harbour.

EDWARD H. ALCOCK, Harbour Master.

APPENDIX, No. 4—*continued.*

ABSTRACT of RETURNS of HERRING FISHERY at HOWTH between the 27th May, 1865, and 23rd December, 1865, furnished and authenticated by the Inspecting Commander and Harbour Master.

Date. Week ending—	Average daily Number of Boats employed.				Number of Mease of 635 Fish each.	Average Price per Mease of 635 Fish.	Gross Receipts.	Number of Days employed.	OBSERVATIONS.
	Cornish.	Scotch.	Manx.	Irish.		£ s. d.	£ s. d.		
1865.									
June 3, .	.	57	3	27	8	3 0 0	24 0 0	3 days.	On 3rd inst. twenty boats out; only three herrings captured. A few of the boats made a trial two or three times the week before last, but took little or no fish, and consequently a great number left for Dunmore.
,, 10, .	1	46	2	12	60	2 18 1½	168 8 0	5 ,,	Fish small first three days. Very fine fish last two days.
,, 17, .	1	68	9	35	1,640	1 11 10¼	2,613 0 0	5 ,,	Very fine fish.
,, 24, .	7	112	10	50	2,930	0 15 4	2,245 10 0	5 ,,	Fish not so good. On the 24th a great many boats did not go to sea—strong winds.
July 1, .	104	120	12	86	1,450	1 8 7¼	2,074 10 0	5 ,,	The fish in prime order. Two-thirds of the Cornish boats left for Kingstown. On the 30th ult. it blew a fresh gale from the south—several boats lost portions of their nets.
,, 8, .	130	120	8	90	4,800	1 10 1½	7,230 0 0	5 ,,	Very good fish on the 4th and 8th; 6th and 7th fish not so good. Strong winds on the 5th; two-thirds of the boats returned without fishing.
,, 15, .	150	100	4	90	2,804	1 11 7¾	4,436 0 0	5 ,,	Fish good. Strong gale of wind from south on Saturday 15th; a great number of boats could not haul their nets till Sunday. One boat (Marquis of Bute, Greenock,) lost, all hands saved.
,, 22, .	100	106	3	86	3,150	1 9 1	4,582 10 0	5 ,,	Very good fish.
,, 29, .	100	80	3	95	350	1 10 7	535 0 0	4 ,,	Very good fish. Fresh gales on the 29th, only one boat (English) out, and got twenty mease, which is not in average.
August 5, .	3	57	.	90	1,810	1 10 4	2,745 0 0	4 ,,	Very fine fish. On the 31st July only six boats (Irish) went to sea, and on the 1st August 5 do. All the fish landed here this week were caught between Carlingford and the Isle of Man.
,, 12, .	.	21	.	20	1,840	1 0 2½	1,857 10 0	,,	Small fish.
,, 19, .	.	55	.	51	2,300	1 5 0¼	2,877 10 0	,,	Very good fish.
,, 26, .	.	80	2	123	5,170	0 17 11½	4,636 15 0	,,	Fish very good and large, except one day on which they were small. On 22nd several boats lost part of their trains, two Scotch boats lost all but two pieces; one of them had thirty-five mease in the two pieces, if she could have got all her nets she would have had 300 mease. One boat had 150 mease. The owner (Isaac) of the two boats alluded to lost £400 worth of nets.
September 2, .	.	80	.	113	3,715	0 17 7¼	3,270 0 0	5 ,,	Fish not very good.
,, 9, .	.	80	1	100	220	1 2 6	247 10 0	1 ,,	Fish not very good—small.
,, 16, .	.	25	.	45	620	0 15 6¼	481 5 0	4 ,,	Fish not so good—very small
,, 23, .	.	7	.	50	956	1 4 7	1,174 15 0	5 ,,	Very good fish.
,, 30, .	.	8	.	48	2,700	1 0 6	2,768 10 0	5 ,,	Very fine large fish.
October 7, .	.	18	5	68	2,720	1 2 [illegible]	3,049 0 0	4 ,,	Very good fish. Strong breezes three days this week.
,, 14, .	.	20	63	80	1,040	1 7 7	1,435 5 0	4 ,,	Very good fish. Strong winds 13th and 14th, which prevented fishing, except very trifling.
,, 21, .	.	30	120	91	576	1 13 7¼	968 0 0	4 ,,	Fish not so good as last week. Strong gales; only six or seven boats out two of these days.
,, 28, .	.	20	120	82	1,770	1 2 6¼	1,997 0 0	5 ,,	Fish small during this week. On the 25th all the boats returned without fishing except five. On the 27th no boats out from Howth, but nine boats from Balbriggan brought to Howth 500 mease, and on the 28th the fleet returned, having in many cases lost their nets; N.E. gales.
November 4, .	.	20	74	40	5,104	0 14 7½	3,733 11 0	5 ,,	Very good fish. Some of the fleet went to Balbriggan and Skerries on 31st October.
,, 11, .	.	20	100	82	16,180	0 12 1	9,785 0 0	5 ,,	Fish small.
,, 18, .	.	15	58	55	4,420	0 15 0¼	3,319 10 0	4 ,,	Very good fish. On the 17th no boats out; fresh gales.
,, 25, .	.	8	12	50	2,020	0 15 9¾	1,597 10 0	3 ,,	Very fine fish. On 21st, 22nd, and 23rd no boats out; fresh gales.
December 2, .	.	4	4	47	1,430	0 17 6¾	1,255 5 0	3 ,,	Some fish small, others very good. The Scotch and Manx boats left here this week.
,, 9, .	.	.	.	15	245	1 0 10¼	255 10 0	3 ,,	Very good fish. No boats out three days this week; fresh gales.
,, 16, .	.	.	.	23	830	0 17 5	723 10 0	7 ,,	Fish not very good.
,, 23, .	.	.	.	20	55	0 17 3¾	47 10 0	2 ,,	Strong gales; no boats out four days this week.
Totals, . .	.	.	.	.	72,913	.	72,134 4 0	129 days.	
Average numbers and amounts per day, for the 129 working days,	22	47	21	62	565	0 19 9½	559 3 7		

NOTE 1. Wherever the number of working days is less than five, the fishing was prevented by stress of weather.

,, 2. The quantity of fish is that actually brought into Howth Harbour from the fishing ground; but occasionally a number of the boats ran into other harbours and disposed of the fish there.

APPENDIX, No. 4—*continued.*

ABSTRACT of HERRING FISHERY at ARDGLASS during 1864 and 1865.

Date. Week ending—	Number of Boats employed: English, Irish, and Scotch.	Number of Mease.	Gross Amount realized.	Number of Days employed.	OBSERVATIONS.
1864.			£ s. d.		
May 28, .	53	56½	56 13 0	6 days.	First week of the season.
June 4, .	79	270½	291 0 0	5 ,,	Boats buying and taking in fish this week.
,, 10, .	112	879	988 0 0	4 ,,	
,, 18, .	226	1,566	1,837 18 0	4 ,,	The *Shamrock* of Killough has had two of the best takes this season.
,, 25, .	290	1,602	1,624 12 0	5 ,,	
July 2, .	438	2,360	2,244 12 0	5 ,,	There are some Scotch boats fishing, and some of the owners have cleared several hundreds of pounds sterling already.
,, 9, .	531	2,802	2,354 2 0	5 ,,	
,, 16, .	295	1,870	1,460 2 0	5 ,,	
,, 23, .	642	2,544	1,907 14 0	6 ,,	
,, 29, .	324	1,224	1,011 4 0	3 ,,	Some of the boats did not go out this week on account of a storm.
August 6, .	212	592	623 0 0	5 ,,	
,, 12, .	153	146	179 13 0	4 ,,	Last week of the season.
Total, . . .	–	15,912	14,578 10 0	–	For year 1864 the total amount realized, £14,578 10s.
1865.					
June 3, .	78	15½	21 7 3	4 days.	First week of the season.
,, 10, .	108	31	47 15 0	5 ,,	
,, 17, .	127	254	357 4 0	5 ,,	
,, 24, .	604	1,922	1,592 8 0	5 ,,	
July 1, .	409	2,812	1,968 16 0	4 ,,	
,, 8, .	415	1,342	1,289 16 0	4 ,,	
,, 15, .	666	2,848	2,717 16 0	5 ,,	
,, 22, .	221	844	1,078 16 0	5 ,,	The fish were all sold fresh, and taken to different markets, chiefly by land carriage, through province of Ulster; but when there have been large "*takes*" considerable quantities have gone to Liverpool by steamboat.
,, 29, .	475	2,073	2,224 17 0	6 ,,	
August 5, .	434	3,849	3,749 4 0	5 ,,	
,, 12, .	394	2,073	1,593 16 0	5 ,,	
,, 19, .	254	1,338	1,412 9 0	5 ,,	
,, 26, .	214	1,366	1,319 14 0	5 ,,	
September 2, .	200	1,078	993 6 0	5 ,,	
,, 9, .	80	447	385 16 0	2 ,,	
,, 16, .	100	568	554 10 0	5 ,,	The greatest number of boats in the harbour at any one time was about 220, the numbers in column 2 being the total numbers of times the boats came in from fishing.
,, 23, .	19	150	143 4 0	4 ,,	
Total, . .	–	23,050½	21,450 16 3	–	For the year 1865 the total amount realized, £21,450 16s. 3*d*
					Owing to the great clemency of this season (1865) the fishing was prolonged six weeks, thus gaining thousands of pounds sterling, which otherwise must have been lost had not the weather been favourable, as the present state of the harbour prevents vessels coming in in very rough weather without a great risk being run both as to loss of life and property.

APPENDIX, No. 5.

APPENDIX.

LIST of LICENCES GRANTED by the COMMISSIONERS to PLANT OYSTER BEDS, up to 31st December, 1865.

Licences to plant Oyster Beds.

No.	Date of Licence.	Person to whom Granted.	Locality of Beds.	Area of Beds.
				A. R. P.
	1846.			
1	5th November, .	W. H. Carter, esq., ...	Tramore Bay, county Mayo, . . .	19 1 11
2	7th December, .	Luke Lyons, esq., ...	Monroughrony, county Mayo, . . .	17 0 0
	1848.			
3	9th June, .	F. H. Downing, ...	Off Daurus Point, county Kerry, . .	3 2 28
	1851.			
4	5th February, .	John Mahony, esq., ...	Estuary of Kenmare River, county Kerry,	165 2 0
5	5th February, .	Rev. Denis Mahony, ...	Do. do.	147 2 0
	1852.			
6	17th November, .	Thomas Whyte, esq., . . .	Ballisodare Bay, county Sligo, . . .	132 1 26
7	17th November, .	John C. Garvey, esq., . . .	Clew Bay, county Mayo, ...	108 3 33
	1853.			
8	22nd September, .	J. O. Woodhouse, esq., . . .	Mulroy Bay, county Donegal, . . .	63 0 26
	1854.			
9	1st July, . . .	Burton Bindon, esq., ...	Carlingford Lough, county Louth, . .	51 3 10
10	15th November, .	Hon. David Plunket, ...	Killary Harbour, county Mayo, . .	288 0 0
11	15th November, .	J. K. Boswell, esq., ...	Ballyconnelly Bay, county Galway, . .	233 0 0
	1855.			
12	18th July, . .	John Richards, esq., ...	Blacksod Bay, county Mayo, . . .	90 0 0
	1856.			
13	30th July, . .	Lord Charles P. P. Clinton, . .	Bear Haven, county Cork, . . .	45 0 0
14	21st August, .	William Foreman, esq., . . .	Ardbear Bay, county Galway, . . .	90 2 0

APPENDIX.

Licences to plant Oyster Beds.

APPENDIX, No. 5.—*continued.*

LIST of LICENCES GRANTED by the COMMISSIONERS to PLANT OYSTER BEDS, up to 31st December, 1865.

No.	Date of Licence.	Person to whom Granted.	Locality of Beds.	Area of Beds. A.	R.	P.
	1857.					
15	7th August,	Thomas Eccles, esq.,	Glengariffe Harbour, county Cork,	9	1	0
	1858.					
16	15th February,	Rev. A. Magee,	Streamstown and Cleggan Bays, co. Galway,	277	0	0
17	15th February,	A. C. Lambert, esq.,	Killary Harbour, county Galway,	114	0	0
	1860.					
18	3rd February,	Rev. R. H. Wall,	Mannin and Ardbear Bays, county Galway,	348	0	0
19	3rd February,	Knight of Kerry,	Valencia Harbour, county Kerry,	78	0	0
20	3rd February,	Captain W. Houston,	Killary Harbour, county Mayo,	43	0	0
21	13th February,	William M'Cormick, esq.,	Achill Sound, county Mayo,	149	0	0
22	11th May,	Edward Browne, esq.,	Ballinakill Harbour, county Galway,	223	0	0
23	4th October,	M. C. Cramer, esq.,	Oyster Haven, county Cork,	20	0	0
24	9th October,	Ebenezer Pike, esq.,	Lough Mahon, Estuary of Lee, county Cork,	47	0	0
25	14th November,	William Pike, esq.,	Achill Sound, county Mayo,	1,676	0	0
	1861.					
26	10th January,	William Forbes, esq.,	Mweenish Bay, county Galway,	225	0	0
	1862.					
27	14th February,	Robert W. C. Reeves, esq.,	Clonderlaw Bay, county Clare,	112	0	0
28	3rd March,	James Walker, esq.,	Belfast Lough, Carrickfergus,	137	0	0
29	6th March,	Edmund Power, esq.,	Tramore Bay, county Waterford,	270	0	0
	1863.					
30	29th May,	George Clive, esq., M.P.,	Achill Sound, county Mayo,	489	0	0
	1864.					
31	2nd February,	Lord Fortescue,	Tramore Bay, county Waterford,	83	0	0
32	5th April,	Lord Wallscourt,	Galway Bay, county Galway,	1,770	0	0
33	10th June,	Colonel C. M. Vandeleur, M.P.,	Poulnasherry Bay, county Clare,	190	0	0
34	10th June,	A. W. Wyndham, esq.,	Newport Bay, county Mayo,	80	0	0
35	30th September,	Captain George Austin,	Westport Bay, county Mayo,	194	0	0
36	31st October,	John Kendall, esq.,	Ardbear and Mannin Bays, county Galway,	236	0	0
37	31st October,	Robert T. Atkins, esq.,	Lough Hyne, county Cork,	25	0	0
38	31st October,	R. E. L. Athy, esq.,	Galway Bay, county Galway,	100	0	0
39	31st October,	P. M. Lynch, esq.,	Galway Bay, county Galway,	320	0	0
40	11th November,	A. Boate, esq.,	Dungarvan Harbour, county Waterford,	65	0	0
41	11th November,	J. R. Dower, esq.,	Dungarvan Harbour, county Waterford,	27	0	0
42	31st December,	Captain W. F. Barry,	Glandore Harbour, county Cork,	68	0	0
43	31st December,	C. P. Archer, esq.,	Ballinakill Harbour, county Galway,	48	0	0
44	31st December,	T. Young Prior, esq.,	Ballinakill Harbour, county Galway,	90	0	0
45	31st December,	P. Macauley, esq.,	Ballinakill and Barnaderg Bays, co. Galway,	150	0	0
46	31st December,	Colonel F. A. K. Gore,	Killala Bay, county Mayo,	375	0	0
	1865.					
47	13th April,	Marquess of Sligo,	Clew Bay, county Mayo,	190	0	0
48	13th April,	Sir Robert Gore Booth,	Drumcliff Bay, county Sligo,	148	3	0
49	29th April,	Right Hon. John Wynne,	Sligo Bay, county Sligo,	190	0	0
50	12th May,	Lord Baron Ventry,	Dingle Harbour, county Kerry,	130	0	0
51	2nd November,	Law Life Assurance Society,	Clew Bay, county Mayo,	118	0	0
52	2nd November,	Marquess of Sligo.	Clew Bay, county Mayo,	25	0	0
53	1st December,	Most Rev. Dr. M'Hale,	Shores of Achill Island, county Mayo,	125	0	0
54	1st December,	Thomas M'Carthy Collins, esq.,	Roaringwater Bay, county Cork,	75	0	0
55	1st December,	Marquess of Sligo,	Clew Bay, county Mayo,	26	0	0
56	1st December,	John Obins Woodhouse, esq.,	Carlingford Lough, county Louth,	54	0	0
57	1st December,	Captain Acheson,	Ballinakill Harbour, county Galway,	18	0	0
58	1st December,	Richard J. Verschoyle, esq.,	Ballisodare Bay, county Sligo,	54	0	0
59	1st December,	Richard Mahony, esq.,	Kenmare Estuary, county Kerry,	30	0	0
60	1st December,	Mr. Robert M'Keown,	Killary Harbour,	61	0	0
				10,738	3	0

NOTE.—To all licences granted since the 2nd February, 1864, a condition has been attached, that unless the bed shall be properly stocked within a specified time, and to the satisfaction of the Commissioners, the licence shall be null and void.

APPENDIX.

Cultivation of Oyster Beds.

APPENDIX, No. 6.

LICENSED OYSTER BEDS. OPERATIONS of PROPRIETORS and their RESULTS, as communicated by the PERSONS who obtained the LICENCES or by their representatives.

Bed No. 2 on list, pages 33, 34.—Monroughrony.

My agent, Mr. Thompson, of Belmullet, has forwarded me your letter of the above number and date. The licence granted was to my late father, Colonel Kirkwood's agent; for a long time past he has been in bad health, and lately died. The property and foreshore in question is now vested in myself and Major Scott, as trustees under my father's will, for a minor. We are anxious to re-establish these beds, the produce of which, we are given to understand, was of a very fine quality; but during the latter years of Mr. Lyons's life he neglected them, allowed people to dredge them whenever they liked, so that they have been very materially damaged. Our present agent, Mr. Thompson, has called our attention to this, and to the necessity of getting them put under proper legal protection. I see, in reply to a question put in the House of Commons, it is the intention of the Government to bring in some measures for the better promotion of fisheries in Ireland. If so, perhaps you may be aware of its provisions, and can advise whether it would be better to wait for them or to take steps at once. In the latter case I should be much obliged if you would acquaint me with the form of proceeding to have this bed registered in the names of the trustees, and put under legal protection. It is a great pity that on a coast so very suitable, as I am informed, for the production of oysters, they should not be more cultivated; but to protect the beds from the depredations of a people very loose in their notions of *meum* and *tuum*, stringent law is required.

The property of Monroughrony, for which a licence was granted to Mr. Lyons, as by letter 7th December, 1846, never belonged to him; it was at that time the late Colonel Kirkwood's.

14 April, 1866. TOWNSEND KIRKWOOD.

Beds Nos. 7 and 35.—Clew Bay.

GENTLEMEN,—I am glad to say my report of this year's operations on the licensed beds in Clew bay must differ but little from the last.

I have continued to purchase as largely as possible from the fishermen of the neighbourhood, and have expended a larger capital this year than last. I have again found a good supply of spat upon the bed where it had been worked during the spring and summer, and very far larger in quantity than fell upon the public grounds near, though there was a very fair spat throughout the bay. The yield of oysters this year has exceeded that of last year by about a half, and the price has nearly doubled; and this quantity would have been largely increased but for one of the worst winters known for twenty-five years in Clew bay, which prevented the men working.

I am happy to say my prophesy has been fulfilled—"that new beds would be discovered"—some twenty-five new beds have been found, and if the people could be induced to work them in the early spring a splendid fishery must ensue.

There is one subject to which I must allude, as it is of the greatest moment, both to the prosperity of the fisheries of Ireland as well as those who have invested capital in licensed beds. I have certainly believed that it is for the Commissioners to inquire, and then grant or refuse a licence, but that after a judicial inquiry, and the licence once granted, the *licence would be good against the world.* I have been, however, much surprised to hear it laid down as *law* in the Assize Court, that before any steps could be taken against a trespasser the *owner* must prove that the Commissioners *rightly* granted the licence, and that it is quite within the power of a Judge of assize to decide and declare the licence to be wrongly granted, and, *therefore, void.* This is bad enough, but it is worse when a Stipendiary Magistrate gravely undertakes to question the right of the Commissioners to grant a licence, and then gives his opinion that they had no right to do so.

It must be apparent that no sane person would take a licence under such circumstances, and invest a capital of thousands on a piece of ground when such improper ideas are held, and where the dictum of a magistrate upon a point that does not come at all within his jurisdiction, may cause his whole capital of thousands of pounds to be swept off in a few days. No deadlier course could be pursued to prevent the introduction and fostering of the oyster fishery in Ireland, where hundreds of bays are better fitted for it than the estuary of the Thames. I trust that the Commissioners will give this matter the consideration it deserves, and take such steps as they may deem to be necessary.

I am glad to report a very marked improvement in the condition of the fishermen of the bay, and a large increase in the number of boats, and particularly in their fittings and gear, consequent on the outlay of money and the increase of the grounds, but I much fear that their prejudice against working them in spring and summer will not be overcome for years, to the very great detriment to the fishery.

Valuable evidence upon this point will be found in the minutes of evidence taken by the Commissioners of Sea Fisheries at Whitstable and Essex, as well as that given by D. Russell, page 1329, *et seq.*

16 April, 1866. GEORGE AUSTIN.

Beds Nos. 8 and 56.—Mulroy and Carlingford Bays.

I have to acknowledge receipt of your letter of inquiry respecting the licences granted to me for oyster layings in Mulroy water and Carlingford Bay, and should have replied sooner but waiting for the ascertainment of the ground to be licensed in Carlingford Bay.

I now beg to say that shortly after obtaining the licence for Mulroy water of the 22nd September, 1853, I had a considerable portion of the ground planted with oysters brought from Lough Swilly, but I regret to say they did not succeed as I expected. Having lately obtained a good deal of information on the subject of oyster culture, I propose to re-stock the beds, and will communicate the result to you in a further letter.

As for the licence for Carlingford Bay of 1st December, 1865, I have already explained to the Commissioners the difficulty as to my licence not including the part of the shore most favourable for an oyster bed; that is to say, the shore down to low-water mark at low spring tides, which was intended to be licensed; and as I hope to obtain a further licence for the omitted ground very shortly, I have put off doing anything at the place until the mistake is rectified.

14 April, 1866. J. O. WOODHOUSE.

Bed No. 10.—Killary Harbour.

In reply to your letter of the 23rd ultimo, the Hon. D. Plunket regrets that he is unable to report any improvement in his oyster fishery, and begs to refer you to his communication of last year, for what he believes to be the cause. He is, however, unwilling to give it up as hopeless, without making another effort, and therefore he intends laying down this year, by way of experiment, a small quantity of oysters in a bed nearer the shore, which seems very suitable for their production, and will at least have the advantage of being more out of the run of the tide, and less exposed to shifting sands.

19 Feb., 1866. ROBERT O'CALLAGHAN, Clk.

Beds Nos. 14 and 36.—Ardbear and Mannin Bays.

SIR,—Upon receipt of your circular of the 23rd of January, I wrote to my steward for information to enable me to reply to you. He was ill, and I did not receive his reply until after the date named in your circular, as that on which you would have to make your report.

In reply to your letter now received, I beg to say that as well on the ground granted to Dr. Foreman as on my own, I have taken steps for cleaning and stocking farther portions of the beds, and that the oysters are doing well.

I find it most difficult to purchase young oysters in sufficient quantity.

I have not yet attempted to market any, and I do not propose to do so until I have greatly extended the beds, which I hope to do gradually, as I can procure brood.

12 April, 1866. JOHN KENDALL.

Bed No. 15.—Glengariffe Harbour.

In answer to your kind inquiries respecting the oyster fisheries of this locality, I beg leave to state, that in consequence of the quantity of weed, called wool, which at this season covers the whole of our bed, the oysters have not sufficient air. I enclose a specimen of same. However, the oysters are doing well. I have not disposed of any since the licence has been granted. J. R. B. esq., who has lately been here, has measured some of mine, 4×6.

I intend placing poles, so as to avoid the wool interfering with the spat.

There are many places in our little harbour where oysters may be propagated with success, had it not been for the way the place is left to the public at large, who take them off the rocks by the thousand, and dispose of them to men who come from Cork at 1*s.* 6*d.*, 2*s.*, and 3*s.* per hundred. In some parts of Glengarriffe harbour you may find bunches of oysters, as many as sixteen together, attached to an old stick.

Our landed proprietor, Lord Bantry, is very kind, and does not prevent the poor from making what they can, and they abuse his indulgence by taking away the oysters before they are half the size for market sale.

Received 27 January, 1866. JOHN ECCLES.

APPENDIX.

Cultivation of Oyster Beds.

Bed No. 17.—*Killary Harbour.*

I but this post received your letter of the 11th, relative to my oyster beds in the Killary bay, county Galway. I did not suppose your former communication of 23rd January required an immediate reply, and deferred one until I should be enabled to visit and test the beds, which I did last week, and found that on a particular part of the shore they were progressing most favourably, while on others, from the strong tide and want of shelter, they had comparatively failed.

Immediately after obtaining the Commissioners' licence for these oyster beds, I bought 70,000 oysters in the neighbourhood of Westport and Newport, and put them out on the shore of my property in the Killeries. Very many, from the power of the tide, &c., were thrown back and lost; but where they have kept hold and succeeded, they are, I suppose, the finest oysters to be seen anywhere. Lord Oranmore, who held my lodge last year for a short time late in the autumn, says the same; and I have every hope that, although the success has been local and not general, that yet every year improvement will take place.

Your letter being directed to Monkstown reached me here but this post.

Brookhill, Claremorris, is my usual abode and address.

14 April, 1866. A. C. LAMBERT.

Bed No. 18.—*Mannin and Ardbear Bays.*

Since last year's report, written by my father, I have to inform you that last spring I attempted the experiment of preserving the spat of the oysters by fencing off a portion of the sea, where hitherto there was a great current, and having deposited about 10,000 oysters for the purpose, and laid down about fifty boats of shingle gravel, with several large bundles of faggots submerged below low-water mark, I am happy to say that my exertions were not altogether unfruitful, as I have observed a good deal of the young oysters deposited on the shingle. I have not as yet raised the faggots, as the weather has been too severe; but on the whole, I may fairly say I have had a partial success, but not anything at all to what I had been led to believe, from having read the different reports from French sources published by the Commissioners.

26 January, 1866. WALTER S. WALL.

Bed No. 19.—*Valencia Harbour.*

SIR,—In reply to your letter of 11th instant, which followed me here, I beg to say that I have done nothing to the oyster beds in question beyond planting out a quantity of oysters which I brought from Mr. Bland's beds at Sneem. I am, however, now in correspondence with a gentleman whom I met in travelling (Captain Austin, of Canterbury), who is largely concerned in oyster beds, both in the Thames and on the Irish coast, and who led me to expect a visit from him at Valencia. He told me that he did not think the Sneem oysters were the best suited to my purpose, and suggested that I should import some either from Tralee or Ballydehob, and if I can get him to come to Valencia and view the ground selected, and if he gives a favourable opinion of it, I intend to follow his advice and make an importation from one or other of the above places.

P. FITZGERALD,
19 April, 1866. Knight of Kerry.

Bed No. 22.—*Ballinakill Harbour.*

In reply to your circular letter of the 23rd instant, I have to remark, that in consequence of the very unfavourable state of the weather for some time back, the oyster fishery in Ballinakill Bay has as yet been little proceeded with; but from the continued practice of stealing oysters, referred to in my last communication of the 24th of February, 1865, and the difficulty of bringing the parties in these illegal acts to justice, the banks are greatly injured by the close fishing and the young oysters being carried away to the county Clare banks. I would beg to suggest that an order should issue from the Commissioners to prohibit oyster fishing in Ballinakill Bay for one or two years, and in the meantime a better system for the culture and preservation of oysters may be devised. The nominal price here is about 17*s.* a barrel (tar barrel), but for the reasons I have mentioned, the produce, no doubt, will prove to be small. Men are offered 4*s.* a barrel for dredging; however, it is not easy to procure them, even at higher wages, as they prefer running the risk of stealing, which brings them in more money, but unfortunately is rapidly exhausting the banks.

27 January, 1866. EDWARD BROWNE.

Bed No. 23.—*Oyster Haven.*

Your communication with respect to the oyster fishery has followed me here. I beg to inform you that I have not laid down any oysters, as the beach at low-water, being muddy, is unfavourable to them. I should feel very much obliged by being informed which would be the best localities to visit in England to see how matters are conducted, as the beach at Oysterhaven must be artificially prepared.*

26 February, 1866. M. C. CRAMER.

Bed No. 24.—*Lough Mahon.*

I am in receipt of yours of 23rd, respecting the oyster beds and fishery. I am sorry to say the channel inside the railway bridge is still changing, and making a new course, which moves the mud, and has, I fear, smothered all the oysters which I laid down in the old channel. I fear it will be some time yet before the run of the tide cuts the new channel so as to stop the shifting of the mud.

25 January, 1866. EBENEZER PIKE.

Bed No. 25.—*Achill Sound.*

SIR,—In reply to yours, which, owing to domestic events was overlooked, I have to state that I have laid more oysters in the beds granted to me.

I find that some planted in shallow water have bred well last season, and I hope that in a year or two the beds will become profitable.

I have already had offers from English companies to take the beds on hire, but have as yet declined to let them.

The beds are extensive, and they require all the oysters I have to lay them properly. I have not, therefore, sold any this year.

16 April, 1866. WILLIAM PIKE.

Bed No. 26.—*Mweenish Bay.*

In answer to your letter of 23rd ultimo, requiring a report upon my oyster beds, I beg to state, for the information of the Board, that they were thriving to my satisfaction for two years. But unfortunately I was taken seriously ill the year before last, and had to leave home for change of air, and was absent above a year. On my return I found my oysters nearly all gone, *evidently plundered;* but the few that are left have grown well, and there is an appearance of young ones.

13 February, 1866. W. FORBES.

Bed No. 28.—*Belfast Lough.*

In reply to your communication of 23rd instant, addressed "James Walker, Knockugh, Carrickfergus," relative to the subject of the oyster fisheries, I have to say that, owing to the absence of that gentleman since May, 1864, and the probability of his remaining for some years in Natal, nothing has since been done in the

* Informed that Whitstable, in Kent, is one of the most important places to see the progress of the Oyster Fishery.

way of developing beds granted to him by licence of 6th March, 1862; but I was informed by parties in the neighbourhood that his experiments had been unsuccessful, owing to the water being too much disturbed, so that the spawn was continually swept away by the sea.

As I have no experience whatever regarding oyster fisheries, I regret that I cannot offer you any observations or suggestions.

25 January, 1866. WILLIAM HARTLEY.

Bed No. 29.—Tramore Bay.

I should have replied to your communication of the 23rd January, but had very little to add, either new or progressive, to my report for the previous year relative to my proceedings on the subject of oyster culture. There has been little or no spat in my beds last season, which is, you are aware, a general complaint. I regret to say that in the process of dredging and cleaning out the oyster beds I discovered that upwards of 25 per cent. of the largest and best oysters have been devoured by such enemies as the whelk, starfish, &c., they having eaten away the fish, leave the shells united but open. I hope I shall be able next year to furnish the Commissioners with an account of the favourable results of some experiments I am about making. The oysters I send for sale to Waterford continue to give the same satisfaction. I am selling them for 6*s.* the hundred, and would get even more if I demanded it. Since my last report I have procured from the Wexford oyster beds close on one hundred thousand brood oysters, supplied by Mr. Mathew Duigan, who gave me much satisfaction in my dealings with him.

14 April, 1866. EDMOND POWER.

Bed No. 30.—Achill Sound.

The licence granted to me in 1863 was so restricted as to be totally useless, and I have taken no proceedings whatever thereupon. It does not even enable me to protect my own shores from depredation, much less to interfere with the system which is rapidly putting an end to the oyster fishery on my part of the coast.*

See note. GEO. CLIVE.

25 January, 1866.

Bed No. 31.—Tramore Bay.

In reply to the circular of the Commissioners of Sea Fisheries for Ireland, requesting a statement of my proceedings with reference to the licence granted to Lord Fortescue on February 2nd, 1864, and of the results that have followed, I beg to state that the oysters laid down by me, both in the open channel and in a park tunnel, in a part of the foreshore which is only laid bare at spring-tides, have alike done well.

None of the oysters have been disposed of for sale, both on account of the short time since the stock was laid down and of my views for their eventual multiplication, for which the locality appears to have greater natural advantages than for fattening. This opinion is founded on the change the form of the oyster undergoes when removed (young) from the Wexford beds. The foreshore and sea-bottom adjacent to Wexford is of a rich clay, on which the oyster thrives greatly, and preserves to the last the symmetrical form of its shells, which very much resembles that of the London "Natives," on a large scale. This form the young oyster loses in great measure when removed to the Rhinesbach waters, and it is replaced by one much coarser and less shapely, which deteriorates the value of the oyster, though, as far as I can judge, the excellence of its flavour remains unimpaired.

From the immature age of the greater part of the oysters I laid down last year there has not been sufficient time to test the results in reference to their reproduction, though, in anticipation of a possible fall of spat from a few of the larger oysters, I placed tile-collectors in the oyster-park. As, however, there has been an unquestionable, though, as far as I could ascertain, a very limited fall of spat on the adjoining grounds of Mr. Power, of Tramore, I am encouraged to look forward hopefully to the future.

Since my last report I have constructed a second oyster-park on the foreshore adjoining the one I formed last year, and I have just been informed of the safe arrival and laying down of a fresh consignment of oysters I ordered from Wexford before leaving Ireland.

10 February, 1866. D. F. FORTESCUE.

Bed No. 32.—Galway Bay.

In compliance with yours, as regards the licence granted to the Lord Wallscourt on the 6th of April, 1864, I have the pleasure of informing you that many experienced gentlemen inspected our oyster beds at Ardfry. I give you a copy of a report of one of those gentlemen, Leonard Wray, esq., of Eagle Lodge, Ramsgate, Kent, England, proprietor of native oyster fisheries on the Kent and Essex coasts :—

"Ardfry, 7th November, 1865.

"To-day I had the pleasure of inspecting the oyster fisheries now established on the estate of Lord Wallscourt here, and I must say that a more successful effort in *creating* a most valuable property has never come under my observation either in England, Scotland, or Ireland.

"Owning property of this description myself, I can better appreciate the very intelligent labours of Lord Wallscourt's agent, Mr. Keaven, who in so short a time has effected so great an increase in the value of this estate. The Ardfry waters seem to me to be especially adapted to the *breeding* of oysters. The shores, as well as the deeper water, even now abounding in young oysters produced by the *stock* laid down but very recently by Mr. Keaven.

"As a *breeding* ground *this* portion of the waters of the estate strikes me as being of *especial* value; other grounds better adapted to *fattening* purposes no doubt exist on the property, and in choosing these I feel sure that Mr. Keaven will exhibit the same sound judgment and discrimination which has already led him to so successful a result in establishing good breeding grounds. I have a real pleasure in bearing testimony to the interesting facts which I have witnessed here to-day.

"(Signed,) LEONARD WRAY."

Now, for myself, a man of fifty years, who lived in this part all my life, except five years on the continent of Europe—seeing such heaps of oyster shells round Lord Wallscourt's estates, and particularly in parts cut away by the sea, I, with many others, concluded that at a period now unknown an oyster fishery must have existed on the shores adjoining his lordship's estates. On the present nobleman coming of age in 1862, I impressed on his lordship and his then agent and receiver, John H. Blake, esq., the propriety of establishing an oyster fishery, and the suitable portions of the shore adjoining his lordship's estates.

His lordship and all, seeing the probability of a success, and having such good faith in the Commissioners, went to work in as earnest a manner as possible, purchased as much seed as might be expected by a youth and landlord just come of age, built a watch-tower at the west point of Ardfry; purchased a detective galley, with other boats suitable for the purpose; purchased buoys, chains, &c., to define our extreme bounds; have men and hooker employed on Galway docks to guard us on that quarter; have strand bailiffs, with many hands, lifting oysters from parts not suitable and putting on sound ground.

In short, we did all without much ado hitherto, and hope soon to benefit by same, by having employment for such as require same on the Ardfry estates, &c., and hope the Commissioners may see by the progress and efforts individually. I also hope they will see the propriety of putting his lordship in a position that his English friends may join him in stocking and working the oyster fisheries by granting a permanent licence.

* The area licensed in this case is 489 acres.

APPENDIX.

Cultivation of Oyster Beds.

If you please to see by Bedfort's chart you can see the proportion below low-water mark, much of which is covered with deep mud, changeable sandbanks, spacious rocks (isles), &c.

I am doing all I can to satisfy his lordship's desire, and to prove to the Commissioners our earnestness in creating same.

In short, our rocks in many parts are covered with young oysters where an oyster was never known to be before.

I trust this scrawl may suffice for the present, and will at any time be most happy to answer any questions required of me that I may know.

JOHN KEAVEN,
Agent to Lord Wallscourt.

26 February, 1866.

Bed No. 33.—Poulnasherry Bay.

SIR,—In answer to your letter of the 11th, which has been forwarded to me, I beg, for the information of the Commissioners of Sea Fisheries, to state, that finding it impossible to procure seed oysters, from the great demand, I have been endeavouring to protect the breeding oysters so as to replenish the beds, which were quite exhausted, and have appointed a caretaker, and laid down buoys; and must also mention that, from the changes likely to be caused, by silting up with sand, by the railway embankment now being closed, it is very difficult to know where oysters can be laid down with safety. I may also state that it would be my wish, and that of the proprietors interested in the oyster fishery at the other side of Poulnasherry bay, that *all dredging* should be prohibited in or near the mouth of the Creek for the next three years.

17 April, 1866. CROFTON M. VANDELEUR.

Bed No. 34.—Newport Bay.

In reply to yours of the 11th, I beg to inform you that a considerable quantity of oysters were purchased and laid on the ground licensed by Captain Wyndham during the season 1864-5. This season none have been laid down, as those previously laid down did not improve, but rather deteriorated. The Commissioners will, no doubt, remember that a small portion only of the ground applied for was licensed, and that very much the worst of it.

Whether further efforts will be made I cannot positively say at present; but should there appear any chance of success the experiment will be persevered in.

The public beds adjoining have yielded extremely well this season, and the dredgers earned very high wages.

14 April, 1866. JOHN ORAM.

Bed No. 37.—Lough Hyne.

Sir,—In reply to your letter of yesterday's date, I have the honour to state, for the information of the Commissioners, that no steps have yet been taken with respect to the oyster beds at Glannifeen, except that I have arranged for a supply of oyster seed, which are to be immediately laid down. When I lay down the seed I shall at once report to you; also I will let you know how they succeed.

11 April, 1866. ROBERT T. ATKINS.

Bed No. 38.—Galway Bay.

SIR,—In reply to your inquiry as to what steps I have taken as to forming an oyster bed under a licence from the Commissioners, I have to inform the Board I have done nothing. I mentioned my reasons to Mr. Barry several months ago. He introduced me to a Mr. Lobb, who, I believe, was anxious to take a lease of districts of shore where licences had been obtained. He looked at the map, and he said my shore was valueless, as it was too open to the force of the tides; in fact, it could not be made a rearing bed. He then said it might be made a fattening bed, but the expense would be great. This opinion decided me against laying out money, particularly as half the bay is Lord Wallscourt's. It should be a joint affair and fished in common; this from private reasons would not be practicable. I have been in communication with a Mr. Hoare, of Dublin, and I have mentioned to him that I thought there were other portions of my shore more capable of being made rearing beds; he has promised to come down and inspect the shore. If I could dispose of my licence for New Harbour to any one who would give a fair remuneration, I shall not object to do so.

12 April, 1866. R. E. L. ATHY.

Bed No. 39.—Galway Bay.

SIR,—I beg to acknowledge the receipt of your letter of yesterday's date, directed to my father, the late Mr. P. M. Lynch, and inquiring what had been done towards the cultivation of the oyster beds for which he obtained a licence.

I beg to say in reply, that owing to his death about two years since, I have been unable through pressure of business to pay to the oyster beds all the attention they require, but I have stocked a portion of them and confidently look forward to a considerable return from the outlay.

The other oyster beds for which no licence was required, from being in our possession for years past, are fully stocked, and I find the banks are excellent for breeding and fattening.

12 April, 1866. J. WILSON LYNCH.

Bed No. 41.—Dungarvan Bay.

In reply to yours of the 11th instant, I beg to say that I have done nothing towards the cultivation of the oyster beds, for which I obtained the Commissioners' licence. As not understanding anything about the subject, would be glad to treat with some person for the transfer of my rights.

JOHN R. DOWER.

P.S.—I would have answered your first communication, but owing to a family affliction it was not brought under my notice.

12 April, 1866. J. R. DOWER.

Bed No. 43.—Ballinakill Harbour.

I have been away from home many weeks, which, with other circumstances of a sad description, will, I trust, be a sufficient apology for not having before this replied to the communication of the Commissioners. I have been unable this season to go down and inspect my oyster bank at Ballinakill, but have been informed that the oysters I laid down for stock last season have increased considerably.

14 April, 1866. CHARLES P. ARCHER.

Bed No. 44.—Ballinakill Harbour.

In answer to your letter of 23rd January last, by order of the Commissioners of Sea Fisheries, requesting information on the subject of oyster fisheries—*of mine, and in the locality.*

In reference to the licence granted to me 31st December, 1864, I have little to say, as I held the beds that I got said licence for by prescriptive right, without let or hindrance, for *twenty* years previous, and my predecessors before me in my estate for time immemorial, consequently I had taken much care of said beds previous to my getting licence, which licence I only took as an additional means of keeping poachers off them, being easier and cheaper than going to turn on title. 1864 was the first time that poachers attempted to go on them. I have got these beds buoyed, and had them pretty well dredged, to remove weeds, dirt, and moss, &c., &c.; and now they present a very good promise of giving a good return for the future, there being a very large share of seed on the beds. *I laid down seed in some places that required it,* I also

removed oysters from some parts that could spare them to some other places requiring them more. In the years 1864 and 1865 I sold off my beds about 100 barrels each year, at 14*s.* 6*d.* per barrel; but some oysters brought down by boat to county Clare paid from £1 to £1 5*s.* per barrel. This year, 1866, I do not purpose taking any oysters off my beds, but I will change some of them. The produce is good in all this locality; quality fine, in my opinion; markets ready —you can send them any place, and if you do not wish that, vessels come from county Clare and various other places the instant you are known to be willing to sell, and take them away, paying you with thanks.

16 February, 1866. THOS. YOUNG PRIOR.

Bed No. 46.—*Killala Bay.*

SIR,—I have the honour to state for the information of the Commissioners of Sea Fisheries, that I have cleared up and prepared for the reception of oysters some of the proposed site for a bed, and have planted oysters thereon, and am now proceeding to plant more. I have to observe that nothing is more wanting to promote the increase and improvement of oyster beds than a power being granted (where it would be used fairly) to clean and dredge beds during the close season.

12 April, 1866. F. A. KNOX GORE.

Bed No. 50.—*Dingle Harbour.*

SIR,—In reply to your letter of the 11th instant, I beg to state for the information of the Commissioners of Sea Fisheries, that no steps have as yet been taken in the formation of the oyster beds, for the establishment of which I have received the Commissioners' licence. My present intention is to form several gravel beds of limited area, on which I propose laying down oysters with a view to their farther extension, should the result prove satisfactory.

There are at present *no oysters* within the area included in the Commissioners' licence.

23 April, 1866. VENTRY.

Bed No. 52.—*Clew Bay.*

At the Oyster Fishery Inquiry at Westport, on the 18th ultimo, Lord John Browne tendered evidence to show that the Islandmore oyster bed, licensed on the 2nd November, 1865, was properly stocked with oysters; and requested that the Commissioners would issue a certificate attesting the fulfilment of the condition attached to the licence.

Mr. James Bernard was sworn and said:—I am the manager in Clew Bay to the Messrs. Baxter, Ferrard, and Baxter, of London, who have taken a lease of the Islandmore Bed from the Marquess of Sligo. I am the manager of that bed, and have had twenty-five years' experience of such matters. That bed is now planted; it is twenty-five acres in extent, and I will say that there is not a prettier planted bed in any bay. I have put 7,700 buddaghans of oysters upon it, and I will lay down some more. It is overstocked in some parts and not sufficiently in others. There is a great deal more oysters on the bed than is necessary. It is sufficiently planted for all purposes, and I believe that the good which this bed will do to the ground outside will, before three years, be more than a full equivalent for the alienation of the bed from the public; in fact, it was no alienation at all, for there was not an oyster upon it when I took it in hand—not a single oyster. I offered to give Lord John Browne £1 for every oyster upon that place, so confident was I of the total absence of oysters. The cost of the 7,700 buddaghans of oysters laid down on this bed was £2,125 5*s.*, and in addition there was £161 paid for employment alone. This bed is planted upon the most approved principles, and is a perfect specimen of a well arranged bed.

JOHN P. BROPHY.

4 January, 1866.

The above memorandum is submitted for the consideration of the Board.

Lord John Browne, on behalf of the Marquess of Sligo, now claims a certificate which may release him from the condition annexed to his licence of 2nd November, 1865, that it should be void if not stocked within three years.

Mr. Bernard, the witness examined, tendered his books and vouchers in corroboration of his evidence.

The evidence is, for many reasons, most interesting, furnishing a precedent for the quantity and the cost required for stocking a given space, under certain circumstances.

The *buddaghan* is a basket containing one cwt. of oysters. The present price at Clew Bay is 5*s.* 6*d.*, or 11*s.* the barrel of two buddaghans; quantity in a buddaghan averages about 360 oysters.

The question now is, in what way the Board will certify the compliance with the condition; whether by a memorandum made on a copy of the licence, or by a separate document.

J. REDMOND BARRY.

LETTER to the MARQUESS OF SLIGO from the COMMISSIONERS in reference to Bed 52.

MY LORD,—With reference to the licence of the Board, dated 2nd November, 1865, permitting your Lordship to form or plant oyster beds or layings in that part of Clew Bay outside or adjacent to the townland of Islandmore, in the parish of Kilmeena, barony of Burrishoole, and county of Mayo, as particularly shown on a map annexed to said licence, the Board having lately made the necessary inquiry for the purpose of satisfying themselves as to the fulfilment, on the part of your Lordship, of the condition attached to this licence.

I am desired to state, that it appears to the Board that the condition of that licence has been fully carried out on your part, and that the space marked out in the licence has been properly stocked with oysters, and duly preserved to the satisfaction of the Commissioners within the time limited by the said licence.

I am, &c.,

12 January, 1866. E. HORNSBY.

Bed No. 53.—*Achill Island.*

In reply to your note requiring information about the state of the oyster bed lately licensed for His Grace the Most Rev. Dr. M'Hale, and the other beds in Blacksod, inside of the Bullsmouth, I regret that the severity of the weather has prevented me from stocking the former, while it has done much to check the dredging in what had been the most prolific bed in the bay.

I have, however, sent to Belmullet to purchase oysters, although for planting purposes I consider them vastly inferior to the Clew bay oyster.

Steps have been also taken for buoying the bed lately licensed. The bed, you are aware, had been formerly the best, probably, on the entire west coast, for its dimensions, and is composed of a firm, compressed quartz-like sand, as a base, strewn over with a vast quantity of shell. At low water of spring-tide it is usually exposed, and having a southern aspect, with no hill to intercept the rays of the sun, seemingly shows that very little artificial aids will be required to make it extremely productive and beneficial to the poor.

I would wish to see the other beds in the bay, belonging to private individuals, buoyed and better stocked, while I consider it advisable to prevent the dredging on the public bed at Tonragee, having been, from over-dredging, almost cleared of stock.

25 February, 1866. EDMOND THOMAS, C.C.

Since last writing to you, I beg to say, I have purchased £75 worth of oysters for laying on the beds of His Grace the Most Rev. Dr. M'Hale.

26 February, 1866. EDMOND THOMAS, C.C.

Appendix.

Arklow and Howth Fishery.

Appendix, No. 7.

Arklow Oyster Fishery. 1865.

I feel great pleasure in sending you the following statement or return respecting the oyster fishery here for the short after-season commencing on the 2nd October and ending the 4th instant (after which date the fleet commenced herring fishing), in continuation of that which I sent you last May. And as I believe the fleet will not dredge any more until next January, this return may be taken as closing for the present year; but should it be otherwise I will note the circumstance, and report it in due time.

The total catch of oysters for the period referred to above was 7,214 barrels, and they were disposed of as follows, viz. :—

London and Kent, . .	2,670 Barrels.
Falmouth, . . .	1,994 „
Dublin, . . .	2,050 „
Clontarf, . . .	500 „

The price at which they sold all through was 10*s.* per barrel, realizing the sum of £3,607, not including freight, packing, or carriage to railway.

By far the greater part of these oysters were of a tolerable fair size, and might be called marketable, or fit for table; there were, however, some small ones, only fit for rebedding. I believe the English buyers in particular prefer small oysters; but they are obliged to take them indiscriminately, large and small, just as the fishermen do.

Nearly all those purchased for England were sent by rail, as well as some of those deposited on the Dublin beds.

We had no French buyers here during the period under notice, but we had enough of English and local buyers, and one of the former is still here, and will remain until dredging is resumed next year. The fact is, the supply was not equal to the demand.

I have already informed you that we had some grumblers here against the very judicious steps which you have taken to preserve the oyster beds of this district from destruction, and that I myself was subjected to much insult and abuse on that occasion; but I am now glad to inform you that I no longer hear this, but on the contrary, I have learned that even the malcontents now acknowledge you were their best friend and benefactor. Such of course was the opinion of all men of common sense here from the outset.

If anything was wanted to prove the wisdom, nay more, the absolute necessity of the course you have taken, my returns for the three years just ended clearly prove it, the total catch for the three years respectively being 58,165, 52,818, and 23,065 barrels, showing a falling off in the second year, as compared with the first, of 5,347 barrels, and in that of the present year, as compared with 1863, the very startling falling off of not less than 35,100 barrels; and this occurred, notwithstanding the fact that the means of catching oysters were improving, I might say every week, during the entire period.

The fishermen may so far congratulate themselves that a corresponding falling off in the sum total which they received for oysters this year has not taken place, the sum realized for each of the three years being as follows, viz. :—

	Barrels.	£	*s.*	*d.*
1863, . .	58,165	12,281	7	0
1864, . .	52,818	16,790	0	0
1865, . .	23,065	14,936	0	0

Thus it will be seen that 23,065 barrels in 1865 realized £2,644 13*s.* more than 58,165 barrels did in 1863, the average price this year being nearly three times higher than it was in 1863.

This was the secret of their clamour. When you very wisely extended the *close time*, they reasoned, and said in effect, if we can earn more money at dredging than we could three years ago, although we cannot get half the quantity of oysters, why prevent us; but they never for a moment reasoned or thought if they had been allowed to do so they would have destroyed the source from which they draw the means of supporting themselves and their families during certain periods of each year, when, as Providence has so ordered it here, there is no other means whatever open to them.

Several new fishing boats have been built this year, and more are about being put in progress of building, and many old ones were enlarged and made all but new, and the entire fleet is in a very efficient state, and well found in all the necessaries.

P. Maher, Harbour Master.

Arklow, 28 Nov., 1865.

J. Redmond Barry, Esq.

Howth Fishery. 1865.

The very great success of the herring fishing at this port for the last few years induced many persons to speculate in it during the past season, as boat owners, fishermen, buyers, auctioneers, &c., and with a result that may not have quite reached their expectations, but on the whole rewarded their exertions with a fair return.

During the spring the boat owners and fishermen of this port were actively engaged making preparations for an early season, and left nothing undone in the fit-out of their boats and nets, to enable them to compete with the fleet that were expected from the various fishing stations of old standing, both in England, Scotland, and the Isle of Man. In fact all the fishermen of this station had their fleet, which was augmented by some half dozen of boats since the previous season, turned out in the very best order, both in appearance and utility.

Whilst the fishermen were making their preparations, the other inhabitants were not idle. An extensive salt and coal store was constructed on the west pier by an enterprising merchant of the town, on a site leased for that purpose from the Board of Works, as Harbour Commissioners, and in which there was a sufficient supply of salt always on hand to meet the requirements of the fish buyers. New bark-pans and bark-houses were also erected, and additional auctioneers' offices were opened on the pier where the market is held.

A new class of boats made their appearance early at this port from the Frith of Forth; they were small open boats, having a very light draft of water, were very swift sailers, and were well suited for the summer fishing; but the shallowness of their nets prevented them competing with those now generally adopted here; there were also a few boats from Lowestoft; but they not having met with the success they anticipated, remained but a short time.

Early in May all the local boats were ready, and

those from other ports were arriving, so that by the end of the month there were some 150 boats in harbour, but no fish to be had in these waters. Early in June the fish were reported as having appeared in the neighbourhood of Dunmore, and most of the boats left for that station; but having met with indifferent fishing and prices (the fish being of a bad quality, known as "*black-gut*") they returned in a short time, and on the 20th June the fish turned up here, one boat having taken twenty-five mease; but from the bad character the fish from the south had got in the market, they were sold at £1 2*s.* 6*d.* per maize. From this date the fishing somewhat improved, and prices went up to £1 12*s.* 6*d.*; but as a summer fishing it was not a favourable season. The course of the fish appeared to have baffled the most experienced fishermen. Instead of going in large shoals, they were to be met with in small balls or knots, so that a fortunate net might be well filled, and those on each side would not have a dozen fish.

The autumn fishing turned out much better than the summer, and many boats that were but able to pay for their food in the first season, made a very good finish that pulled up for their losses, and many boats continued fishing up to the first week in December.

The entire season was unusually rough, and considerable damage was sustained in boats and nets. Three boats were totally wrecked (one with six hands drowned), and many trains of nets were carried away during the stormy weather.

The most of the herring taken during the season, even to the end of the autumn, were bought up for a *fresh* market, either in this country or England, a few hundred barrels only having been cured, as the prices continued too high to warrant parties curing to any extent, and owing also to the want of proper accommodation for curing fish at this port; but this latter want is about being overcome, as the Harbour Commissioners have made arrangements for erecting a range of curing sheds on the east pier that will protect the fish from the weather during the process of curing.

During the early part of 1865 there were about ten smacks engaged in the cod line fishing, at which they made fair wages; but they suffer much from the trawlers constantly carrying away their lines. One boat was fitted out for haddock fishing, but was obliged to abandon it, having got no fish.

Five boats belonging to this port fitted out early in March for the mackerel fishing off Kinsale, where they made good wages up to the 1st of June, when they returned for the herring fishing.

A few small boats and crews are constantly employed in lobster fishing along the rocky shores in this neighbourhood, and during the spring and summer months they fish also with long lines, and take a good quantity of flat fish.

J. J. BOYLAN,
Executive Engineer.

Howth Harbour,
10th April, 1866.

RING AND DUNGARVAN FISHERIES, 1865.

In Ring the boats and gear are in good condition and efficient as compared with former years; but I cannot report an actual improvement, as there has been a great deficiency in the quantity of fish appearing on the coast, with no immediate prospect of amendment. The great scarcity of fish in the Dungarvan market may be attributed more to want of enterprise on the part of the fishermen—who certainly can plead want of boats and gear—than to a falling off in the quantity of fish on the coast. For the first time I have observed a spirit of emigration springing up among the fishermen here, occasioned by the scarcity of fish; they would not emigrate if successful as in former years. The last year has been very unproductive to all classes of fishermen. The after season was very unfavourable owing to continued storms.

The oyster fisheries are almost extinct. In the channel near the town of Dungarvan oysters of fine quality have been taken, but the beds are now nearly exhausted. No new beds have been discovered. Licences have been granted in two instances, but no steps have been taken to stock the ground. Dungarvan oysters sell at 1*s.* 8*d.* per score.

There are no curing establishments or ice houses. The fish is generally sold fresh, but in Ring it is saved, and sold in the inland towns about March, or forwarded to Cork.

All the fishermen work harmoniously together, and they are most orderly and peaceable. The Ring men are all able-bodied, but there are very few able-bodied at Dungarvan, where the impoverished condition of the fishermen still continues. During the bad weather they seek an asylum in the workhouse.

Trawl and trammel net fishing is carried on without any contention of late with the line fishers. There is no restriction to these modes of fishing, except that trammels cannot be set at the mouth of the harbour. I have formed no opinion on the subject of restraints on these modes of fishing, except that the existing laws work successfully; and as regards the effects of trawling on the general fishing interests—that is a question upon which such a diversity of opinion exists that I must leave its decision to more competent authority.

Thirteen trawlers, of from fifteen to twenty tons each, work in from ten to twenty-five fathoms of water; about fifteen boats of eight tons each are employed in the seine trammel and line fishing, irrespective of about twenty-six hookers. Some of the fish taken is sold in the local markets; a large quantity is conveyed inland by dealers in the fresh state; and large quantities of cured hake and ling are sent to Cork. Plaice, soles, and turbot are taken by the trawl from March to September; sprats, mackerel, and horse mackerel by seine in summer, and hake by trammels; hake, cod, ling, and pollack are taken by line. The trammel nets are used from July to Christmas; cod and ling are only taken from Christmas to 1st April, and are not sought after when out of season.

Scarcity of fish is the chief impediment which appears to prevent, on the part of the coast population, a return to those industrious habits of fishing for which they were once remarkable. I should observe, however, that there were some very fine haddock taken within the last year.

The attention of the Commissioners is again drawn to the state of Ballinagoul pier. A very small expenditure would afford considerable shelter in the basin by closing the gap between the pier and breakwater.

J. ALCOCK.

Ring, 10th April, 1866.

Appendix.

New Legislation.

Appendix No. 8.

Correspondence, &c., relative to the Necessity for altered Legislation with regard to the Oyster Fishery.

Lissadil, Sligo, Ireland,
March 25th, 1865.

Dear Sir Robert Peel,—I wish to bring under your consideration and that of the Government a matter of much importance to the public at large, as also to many individuals—I mean the very defective and uncertain state of the laws as regards oyster fisheries. We find by a recent trial that a Judge does not consider a ninety years' occupation, only interrupted by poaching a few times, a sufficient tenure to establish by prescription an oyster bed to be private property. What have been the results? A valuable oyster bed has been totally destroyed. About seventy-two boats went nigh dry upon it, and took off every oyster. Now, if the public are permitted to act thus there will not be an oyster left by end of next season anywhere in Ireland. It has occurred to me that a short Act might be passed this Session empowering the Fishery Commissioners to examine on oath all the circumstances and tenure of each private oyster fishery (the owner applying for such), and give a *licence* for old established fisheries clearly proved to have been private, in same way as the Commissioners have the power of granting *licences* for new oyster fisheries; this would be, as it were, granting a new indisputable title, somewhat similar to the passing an estate through the Incumbered Estates Court.

I have heard the Crown has no power to give a patent for an oyster bed (where the oysters are always best) in deep water; but the law is so very uncertain on the subject of oyster beds that it requires some new enactment to define it. I think an Act brought forward by Government would be infinitely preferable to any member endeavouring to legislate on the subject.

I am, dear Sir Robert Peel,

Yours very sincerely,

(Signed), Robert Gore Booth.

Reference from the Chief Secretary of Sir Robert Gore Booth's Letter, dated 25th March, 1865.—No. 2,984.

I have attentively read Sir Robert Gore Booth's letter to Sir Robert Peel; and I am quite prepared to admit to the full extent the very unsatisfactory state of the laws affecting the oyster fisheries of Ireland.

It is quite true that various causes have produced at this moment a most unusual demand for oysters, both for purposes of brood and of consumption.

There have existed in several places in Ireland, almost time immemorial, cases of several or exclusive rights to oyster grounds, either originally natural beds or formed at the cost of the proprietors of the adjacent shores. In some cases those rights have been strictly preserved, and "marked out," and have been respected. In some cases they have been neglected by the proprietors, all lines of demarcation have been removed, and not only have occasional encroachments been made upon them by trespassers, but all ownership has been repudiated by the public, and they have been so much encroached upon as to render them nearly barren, and not worth looking after by the former proprietors, whose rights appear to have lapsed altogether.

The recent demand, which no doubt has been mainly caused by the facility of transport by steam and rail, has induced the representatives of those old proprietors or the present owners of their foreshores, to resume their exclusive rights, and has also generated in some cases a disposition to usurpation where no such several rights ever existed. In many instances, where applications have been made to the Commissioners of Fisheries for licences under recent Statutes, the parties have alleged that their chief object was to obtain quiet possession of what was already their several right, and by obtaining a licence to facilitate prosecutions for trespass on the beds.

As the law at present stands, it is scarcely possible for any one to obtain redress from the ordinary tribunals, although the preservation of private rights has been made especially the subject of legislation in the following recent Statutes:—

[The 5th and 6th Vic., cap. 106, secs. 11 and 12.] The first of those sections constituting an illegal encroachment a larceny, is said to have been nearly rendered wholly unavailable by the qualifying words with which it terminates—"provided always that nothing herein contained shall extend to any case where the party taking such oysters, or accused of stealing the same, shall have acted under a fair and reasonable supposition that either he himself or any other person in whose right or by whose authority he acted, or the public at large, had a right to take the said oysters, and to convert the same to his or their own use."

The next section, 12, contains the same proviso.

The 8th and 9th Vic., cap. 108, section 16, provides, That oyster beds below lowest water of spring tides are not to be deemed private property unless legally possessed and enjoyed by some person by virtue of charter, grant, patent, or Act of Parliament, in and by which such oyster bed or fishery is specially granted, and the limits thereof accurately described, or unless the same has been held and enjoyed by prescription as an exclusive right and private property within limits clearly defined.

Then comes the 17th section of the same Act, conferring on the Commissioners the power to grant licences under certain limitations and restrictions; and the rights conferred on individuals by those licences are guarded by a short but summary and unqualified section, 18, wholly divested of those provisions which are said to have nullified the effect of the powers to convict for trespass on private or several beds.

Next comes the 13th and 14th Vic., cap. 88. The 41st section extends the powers of the Commissioners to grant licences, "either above or below the level of the lowest water-marks of spring tides as the said Commissioners shall think fit."

The next section, 42, prescribing the penalty, revives the qualification before referred to as included in the 11th and 12th sections of the 5th and 6th Vic., cap. 106, and places the newly-formed beds in the same jeopardy with beds claimed as several rights.

The next protective measure for the prevention of encroachment on private rights will be found in the general Statute 24th and 25th Vic., cap. 96, sec. 26. This section has wholly omitted the qualifying proviso complained of in the penal sections of the 5th and 6th and 13th and 14th Vic., and would seem to be sufficiently summary and unequivocal to give ample protection; but it is said that so long as the former sections remain unrepealed they may be used as a justification for encroachment. The principle is said to have been recognised by the distinguished Judge who tried the case at Sligo last Assizes. He is stated to have included in the several conditions which should justify a conviction, "You must be satisfied also that the men went there with the guilty knowledge of trespassing on private property."

It is not within my province to comment on the opinions propounded by the great constitutional lawyer and distinguished Judge who presided at the Sligo trial or on the complaints of the result by parties interested. I have been a close observer for some years of similar legal contests of the same kind, and in every instance that I know of, except in one, the claimants of prescriptive rights have failed in their efforts to obtain

convictions for trespasses. The result of every such case has tended to increase the disposition to disregard the rights of property; and, added to the inordinate demand which at present exists for oyster brood, I am sorry to say, threatens the most disastrous consequences generally to the oyster fisheries of Ireland.

I am quite convinced that the apprehensions of Sir Robert G. Booth, expressed in his letter to Sir Robert Peel, are well founded.

The Commissioners are aware of the unanimous opinion expressed by all parties interested in the great public beds on the east coast between Carlingford and Carnsore Point, and the meetings that we have held within a few days at Carlingford, at Arklow, at Courtown, and at Wexford, furnish ample testimony of the exhausted state of those great public depositories, and the necessity for a curtailment of the open season for dredging. The scarcity, and the great competition between the English, the French, and the Irish buyers had in one day caused an advance in the price from 10*s.* to 22*s.* the barrel of about 600! For this overdrain we have at present no other legal remedy than a curtailment of the open season; and we are told by some of the most intelligent persons that this restraint may be carried to a mischievous extent, inasmuch as that accumulation of dirt and weeds on the banks would be as bad as over-dredging.

How far such a measure of legislation as Sir Robert Booth proposes may be considered expedient by the authorities or by Parliament is a matter for serious consideration; but I do not hesitate to acquiesce in the statement of the honorable baronet as to "the defective and uncertain state of the laws as regards the oyster fisheries;" and I am fully convinced that the whole case requires revision.

The laws administered by our Board, although they contain the general principle of regeneration and improvement, are said to be in many points exceedingly defective; and even though the important question of several rights may be considered only a subject for more serious deliberation, there are some points in which our recent laws are obviously defective, and which can only be remedied by legislation.

The 13th and 14th Vic., cap. 88, sec. 41, concentrates and enlarges the powers of the Commissioners in granting licences to the owners or occupiers.

1st. Cases have arisen in which it is embarrassing to determine which class should have a preference. Yearly tenants may be occupiers, persons with short tenures may be lessees, and there may, in short, be many intermediate parties between the occupancy and the fee.

2nd. The words of the section are, "to form or plant any oyster bed or laying on the shore adjacent to such lands, and either above or below the level of the lowest water-marks of spring tides, as the said Commissioners shall think fit." Now, it is generally, almost invariably, necessary that the licensed ground should extend from the shore, say at high-water mark, to a certain extent into deep water, thus embracing a space both above and below the level of the lowest water-mark of spring tides. This is said to be beyond the powers of the Commissioners, which is stated to be confined to the alternative either above or below.

3rd. The Commissioners are in the same section restrained from granting permission "on any public banks or beds at present resorted to for oysters; but that the rights hereinbefore granted and conferred are to be considered as exclusively applying to places where no such public oyster beds at present exist." The construction given to the words "at present" is, that they apply to the period of the passing of the Act, 14th August, 1850. Now it is quite certain that the state and circumstances of several places where the licence is sought for were very different fifteen years ago from their present state; oysters may have existed or abounded formerly where now there is a barren waste, requiring to be regenerated. Our inquiries are rendered in many cases embarrassing by this phraseology, and opportunities are afforded to vexatious quibbling opponents to raise difficulties.

4th. It has been suggested that after the words, "Or the appropriation of any public banks at present," the word "profitably" should precede "resorted to." The necessity for this qualification has been illustrated on several inquiries. Evidence has been produced to prove that a miserable subsistence has been occasionally obtained by taking away the small remnant that remained for brood, and that has constituted a valid ground for withholding a licence.

In the Appendix to the 19th Report of the Commissioners of Public Works will be found the proceedings at a meeting held at Midleton, in the county of Cork, on the 18th November, 1850, at the instance of a nobleman and six landed proprietors on the shores of an estuary called the East Ferry, where there are ample proofs of the existence before the memory of man of most productive oyster fisheries, but where at the time of the meeting it was merely a barren waste. Those persons proposed to join in its regeneration; but their intentions were defeated by parties who had much a deeper interest in the licences being granted, as a source of extensive employment, to themselves. It is now thoroughly exhausted.

4th. A further deficiency may be found in the present Statutes in the absence of any provision for a preliminary public inquiry previous to granting the licence, or of any defined regulation for the publication of the Commissioners' decision, or for any mode of proving the same, in case of dispute or prosecution for trespass.

It is not enough that the present and late Commissioners should have determined to grant no permission without a previous public meeting held in the locality after advertisement and notices; it should be rendered imperative by legislation.

Applications for licences have greatly increased lately, owing to the uncertain position of the claimants of several rights and the extraordinary demand. The Commissioners having had reason to believe that the judicious establishment of private layings has tended very much to diffusing profitable employment, and to the improvement of the open public banks in their vicinity, have felt very anxious to avail themselves of every favourable opportunity of exercising their powers where there was not an obvious and undue interference with public rights or truly profitable employment.

Powers such as have been conferred on them should be as clearly defined as possible; there should be nothing equivocal. I therefore earnestly hope that the subject may have their immediate attention.

J. REDMOND BARRY.

3rd April, 1865.

Office of Public Works,
Dublin, 11th April, 1865.

SIR,—With reference to the letter of Sir Robert Gore Booth, dated 25th ultimo, and herewith returned, I am directed by the Commissioners of Public Works to inform you, that under the present Acts relating to oyster fisheries on the coast of Ireland, this Board is authorized to grant licences only in places where no public oyster beds at present exist; and the power of granting such licences was given for the purpose of encouraging the formation of oyster beds.

In the Acts referred to there are some points that it will probably be desirable to alter and amend by legislation. The Board has this subject at present under its consideration, and will shortly be able to bring under the notice of Government such alterations as it would recommend.

With regard to public oyster beds, the Board has the power of making by-laws, extending the close season, &c., so as to counteract the tendency to overwork them. With respect to private beds, the Board is fully aware of the difficulties mentioned by Sir Robert Gore Booth, which arise whenever the public disputes the right of the reputed owner of such beds. The rights claimed

can then be decided only by the regular legal tribunals, and the Board feels that to constitute it a judge of the rights of property, which the measure suggested by Sir Robert Gore Booth would virtually do, would be to invest it with a power of an unconstitutional nature, and one which it does not think it ought to be called upon to exercise.

I am, sir, your obedient servant,

E. HORNSBY, Secretary.

The Right Hon. Sir Robert Peel, bart.,
Chief Secretary for Ireland.

Sligo, 7th December, 1865.

There has been some trouble here of late relative to oyster fisheries. In the case of Mr. Barrett who has one, I made a good many persons amenable for plundering it. In Sir Robert Gore Booth's, two persons came to me on Tuesday last to make declarations as to their being fired on when herring fishing. I enclosed the documents to Sir Robert, and attach his reply. I fear there will be bloodshed amongst the parties unless I obtain a general authority to use the Coast Guards so as to prevent the fishermen trawling for oysters on those beds in pretence of herring fishing. The Constabulary in a case of the kind could be of no use, at least without boats, which they have not, and the duty is at night, which would make it more difficult for a land force. I would be glad to receive any instructions from you on the subject.

M. HOWLEY, R.M.

The Under Secretary, &c.

Referred to the Commissioners of Sea Fisheries, 9th December, 1865.

Office of Fisheries, 21st December, 1865.

I received this reference and the accompanying papers at Westport, from whence I have just returned, for the purpose of conferring with the Board before I should visit Sligo.

The case is simply this: Sir R. G. Booth has, time immemorial, had a several right in the oyster beds at Lissadil, as marked on the Ordnance Sheet of Sligo, No. 8. Finding those beds insufficient to meet the growing demand for oysters, he applied to our Board for a licence for some adjacent ground, which he proposed to stock and cultivate. The usual formalities having been complied with, a public meeting was held at Sligo, and several witnesses were examined, and the unanimous feeling having been in favour of the extension of Sir Robert's beds, after discussion of the evidence and minutes of the meeting, the Board granted to Sir Robert on the 13th of April last a licence for the proposed extension.

Unfortunately there has since then been a good deal of litigation and angry feeling about encroachments made before the meeting on Sir Robert's private beds, and the general question has come before Judge Christian, whose opinion in a similar case was unfavourable to the rights of several owners.

Whether those encroachments now complained of by Sir Robert were made upon his former several beds, or on the licensed ground adjacent, does not appear; but Sir Robert is wrong in supposing that he can restrain fishing for herrings or any other floating fish, even upon his oyster beds, there being an especial saving in the Statute for such right of fishing for floating fish. See 5th & 6th Vic., cap. 106, sec. 12.

It does not appear whether any oysters were taken, or whether the fishing for herrings was only a pretext; but, under any circumstances, it is much to be regretted that any force calculated to endanger human life should be resorted to.

It appears by the proceedings at the Sligo Petty Sessions of the 15th December, that the subject has been before that tribunal—(see extract from 18th December, *Irish Times*)—and that the Resident Magistrate has already taken some preliminary steps towards the preservation of the peace.

It strikes me that the case is one more for the consideration of the law officers than for the Board; but if it should be their opinion that it is expedient for me to visit Sligo, I shall, of course, attend to their instructions.

J. REDMOND BARRY.

Office of Public Works,
Dublin, 19th March, 1866.

Begging reference to my report of the 25th March last, on the correspondence between the Chief Secretary and Sir Robert Gore Booth, proposing amendments in Acts relating to oyster fisheries, and to the solicitor's notes thereon of the 12th April following, I feel bound, after having since then devoted much attention to the subject, to bring the question again under the consideration of the Board.

I am still fully convinced that the subject is one of great importance, not only to the promotion of the oyster fisheries, but to the peace of the country. Since my last report a great portion of Sligo Bay has been the scene of frequent riot and disturbance, threatening the loss of life, involving parties in litigation, and leaving the important question of rights in property in a most unsettled and unsatisfactory state.

On the 30th November, 1864, we held meetings in Sligo to inquire into the claims of Sir Robert Gore Booth, bart., and the late Right Honorable John Wynne, for licences to plant oyster beds on parts of the foreshore of their respective estates. The proceedings at those meetings were, as we supposed, extremely satisfactory; and although there was some opposition in both cases on the part of the public, it was finally withdrawn, and the Board, after giving the best consideration to the case, decided upon granting licences to both applicants; but as there were some prosecutions pending for encroachments made on Mr. Wynne's beds, claimed as several rights, the Board very properly withheld the licences while those prosecutions remained undisposed of; and it was not till the 13th April, 1865, that the licence was granted to Sir R. G. Booth, and on the 29th of the same month to Mr. Wynne.

In the interval between that and the meeting at Sligo in November, 1864, the prosecutions by Mr. Wynne had terminated with the acquittal of the several traversers at the Spring Assizes of Sligo on the 4th March, 1865.

Upon that occasion the charges of Mr. Justice Christian to the Grand Jury, before the bills were found, and to the Petty Jury, after the trial, are deserving of high attention, and, so far as a newspaper report can be relied upon, seem to embrace some questions of great importance. It must, however, be remembered that in these cases Mr. Wynne was proceeding altogether upon his ancient and several rights, and that the question of the title claimed under a licence from our Board did not arise.

The book which accompanies this report contains a full report of the proceedings, as extracted from the *Sligo Chronicle* of Saturday, March 11th, 1865.

The acquittal of the traversers in those cases was followed by very serious disturbances and encroachments, not only on the private beds of Lissadil, long believed to have been the several property of Sir Robert G. Booth, but upon the ground where he was permitted to plant oysters by the Board's licence of the 13th April last; and the matter became again the subject of legal inquiry before Mr. Justice O'Brien at the late Spring Assizes for Sligo, 9th March, 1866.

Sir Robert G. Booth on that occasion confined his prosecution to the cases of encroachment on his licensed beds. Mr. Brophy of our Department was subpœnaed to prove the licence, and after a lengthened trial, in which eminent counsel were employed on both sides, the result was again an acquittal of the traversers. The trial occupied the entire of the 9th March, up to a late hour, and I annex a report of the proceedings from the *Irish Times* of the 10th and 12th instant. It will be found in the same book which contains the former trial.

When Mr. Brophy was about to proceed to Sligo, I requested him to make notes of such parts of the arguments of counsel and of the Judge's charge as should bear upon the validity of the title granted by our licence, and I beg to submit a minute of the proceedings furnished by him, by which it will be seen that our licence is little more than a nullity, and that parties who rely upon it have a very unsound foundation.

I confess it seems to me to be only a delusion for parties to imagine that they can protect their property under the construction which the law bears at present; and I humbly think, that in addition to the causes stated in my report of 25th March, 1865, those recent decisions make it quite indispensable that there should be altered legislation before we proceed to any further inquiries on claims for licences. If required, I am of course quite ready to submit my views of the changes that would be desirable; but above all things I would desire to see established some easily accessible and inexpensive tribunal of appeal to our decisions, after which all the validity of fixed law should be given to our licences.

Since writing the above, a letter has been received, of which I give a copy, from Mr. Verschoyle, a proprietor, residing at Tanrago, on the shores of Ballysodare Bay, in the county of Sligo, to whom a licence was granted on the 1st of December last for a small oyster laying, by which it appears that after the recent decisions he fears to incur the expense of stocking. I am quite sure that many other persons who have obtained licences will feel the same unwillingness to proceed with a very costly and troublesome process.

Mr. Brophy has again been subpœnaed to give evidence at Castlebar in an appeal case from the Mayo Quarter Sessions to Mr. Justice Christian; and since his return he has furnished the report, which I annex, of the Judge's observations, by which it will appear that his affirmation of the dismiss at Quarter Sessions was founded, not upon the validity of the title under our licence, but on the fact proved that this ground had formerly been claimed by the lessors to Captain Austin as a several right.

I am quite aware that the Board have been anxiously waiting to know what action would be taken on the recommendations of the Royal Commissioners, as stated in their report; but, pending some measure of alteration or amendment of the law, I do humbly think that all cases of applications for licences should be held in abeyance, and that a communication to that effect should be made to Her Majesty's Government.

J. REDMOND BARRY.

OYSTER FISHERIES.—SPRING ASSIZES, SLIGO, *9th March*, 1866.

Mr. Justice O'BRIEN on the bench.

Sir R. G. BOOTH *v.* PATRICK FEENY and Others.

Patrick Feeny and others were indicted for a misdemeanour, under the 26th section of the 24th & 25th Vic., cap. 96, for that they, on the 19th January, 1866, did unlawfully and wilfully use a dredge within the limits of an oyster bed licensed to Sir R. G. Booth by the Commissioners of Fisheries in April, 1865, under the 41st section of the 13th and 14th Vic., cap. 88.

Mr. *Carleton*, Q.C., in stating the case of the prosecutor, admitted, and laid it down as a fact, that if the bed licensed by the Commissioners was a public bed resorted to for oysters in the year 1850 (the time of the passing of the Act 13 & 14 Vic., c. 88), the licence was null and of no force or effect.

The evidence he adduced was all directed to that point, to the proof of the licence, to the marking out of the bed, and to the committal of the trespass, within the marked limits, in January last.

Mr. *Robinson*, Q.C., on the part of the prisoners, adopted the same view of the law, and stated his case to be, that in the year 1850, and from time immemorial, this was an oyster bed resorted to by the public, with whom no interference whatever took place until December, 1864. He also reminded the jury that the prisoners went on this bed simply to assert their rights; and if they did so under a *bona fide* conviction, even although that was a mistaken conviction, that they had a right to go there, they must be acquitted of having gone there "unlawfully and wilfully." Again, if it could be proved that prior to the granting of the licence in 1865, oysters existed there, and were taken by the public, the jury should record a verdict in favour of the prisoners.

The evidence adduced by him was directed to the point that this was an old oyster bed, and that it was dredged by the public in 1840, 1844, 1846, &c.

Mr. *Harkan*, on the same side, insisted that no title was given by the licence, as the evidence incontestably established the fact that the public had fished there for at least twenty-five years, and that it was a public oyster bed in the year 1850.

Mr. *Monahan* called upon the jury to protect the rights of property and carry out the intentions of the Legislature by supporting the licence of the Commissioners, which had been issued after a formal public inquiry and mature deliberation. It had been proved by one of the witnesses that the bed had been dredged bare in 1850, and therefore at the time of the passing of the Act 13 and 14 Vic., it was not a public oyster bed, and the Commissioners' licence gave a perfectly valid title to Sir Robert Booth.

His LORDSHIP in charging the jury stated that there were three points for their consideration; and if they had any doubt upon any one of these points, as this was a criminal prosecution, the prisoners should get the benefit of that doubt and be acquitted. The first was, had the prosecutor unequivocally established his title to this bed, under the licence of the Commissioners, made in April, 1865? It was true the licence had been proved under the hands of the Commissioners, but that licence was not final and conclusive; its validity and force as conferring a title under the 41st section, depended upon the fact that this was not a public oyster bed resorted to by the public in 1850 or before it. The Act said that the forming or planting such an oyster bed should not give a right to the appropriation of any public banks or beds resorted to for oysters at the time of the passing of the Act, for that was the meaning he was disposed to give to the words "at present." It was for the jury to determine whether this was proved beyond a doubt, and if it was not so proved, the prisoners should be acquitted. The second point was, was the bed sufficiently marked out on the 19th January? They had heard the evidence upon that, and he confessed that it did not appear to him to be very clear or well defined, and if they had any doubt upon it the prisoners were entitled to the benefit of it. Thirdly, if they were fully satisfied that both these points had been established in favour of the prosecution, they were then to say whether these men, in going on this bed for the purpose of dredging, did so unlawfully and wilfully; and in order to come to that conclusion they should be convinced that these men did not go there for the *bona fide* purpose of asserting a right which they believed to be theirs, even though they were mistaken in that belief. If they went there to assert a right which they had previously exercised, and which they believed the public still possessed, or if they went there for the purpose of testing the right claimed by

the prosecutor, he had no hesitation in saying that they did not do so "unlawfully and wilfully;" and if the jury had any doubt upon that point the prisoners were entitled to an acquittal.

The jury retired at half-past seven, and returned into court at eight o'clock with a verdict of acquittal.

I understand that they came to the conclusion that the title was established under the licence, but that, in consequence of the previously unsettled state of matters between Sir R. Booth and the public, and the abandonment of prosecutions commenced before the licence, the jury gave their verdict in favour of the prisoners on the third point—that they went on the bed in the *bona fide* assertion of what they believed to be their right.

If the law be, as laid down by the learned Judge, the necessity for its amendment is imminent; if in every case tried after the issue of a licence it is open to a jury to go behind the licence and determine whether the place licensed was or was not a public bed in 1850, here is no security for property under any licence granted up to this time.

JOHN P. BROPHY.

13th March, 1866.

SPRING ASSIZES, MAYO, 15*th March*, 1866.

RECORD COURT—Before Judge CHRISTIAN.

CASEY *v.* AUSTIN.

This was an appeal from a decision of the Chairman of Quarter Sessions, dismissing a civil bill for the sum of £40, for that the respondent maliciously, and without reasonable and probable cause, had the appellant arrested and held to bail.

The evidence on the part of Casey went to show that on the 7th October, 1864, he and others were dredging on a place where they had been always in the habit of dredging, that they were arrested for so doing, and that the case was dismissed by the Magistrates.

The County Surveyor proved that he, on the 19th October, 1864, and at the request of Captain Austin, changed the buoys on the northern and eastern line, in accordance with the map on the licence, and that he extended the limits of the previously marked out bed on the northern line, and that he contracted the formerly marked out bed on the eastern side.

Two witnesses swore that the dredging on the 7th October took place outside the limits of the buoys as laid down by the County Surveyor, in accordance with the licence.

On the part of the defendant it was sworn that Casey and his party were dredging within the limits of the licensed bed, as marked out on the 19th October, 1864; that the present licensed bed was a prescriptive bed, under the Garvey family, who had for a long time exercised exclusive control over it; that whenever the public went upon it to dredge they were always driven off, formerly by the Garveys and lately by Captain Austin; that the licence was obtained to have a statutable title, and to avoid the trouble and expense of proving the prescriptive right; and finally, Captain Austin swore that he believed that the people in going upon the bed did not go there under any *bona fide* belief that they had a right to do so as part of the public.

I was examined in proof of the licence and of the proceedings at the inquiry, and explained that although there was no provision in the Act of Parliament for such public inquiry, the Commissioners felt it to be their duty to thoroughly and publicly investigate the circumstances of each application, in order to guard against the appropriation of any public bed under the terms of the 41st section of the 13th and 14th Vic., cap. 88.

The Judge expressed his opinion that the appellant had been arrested "without reasonable and probable cause," but affirmed the decision of the Court below, on the ground of the absence of legal malice. That opinion he based upon the fact of the bed having been always claimed as a several and prescriptive right—of the public right not having been asserted—and therefore of the existence of a *bona fide* belief on the part of Captain Austin that the public on the occasion in question did not dredge in the *bona fide*, even though mistaken belief that they did so in the exercise of a public right.

The question of the validity or effect of the Commissioners' licence did not come into judicial consideration; but in incidentally alluding to the licence the Judge designated it as "a nullity in a case where any public right had existed," without defining when, or specifying the necessity for the exercise of the right. He held that the licence was of no effect whatever except where there was a prescriptive right claimed and exercised.

This opinion goes farther even than that of Judge O'Brien on the subject of the force or validity of the Commissioners' licence.

The following is a summary of the charge:—The action was for false arrest and malicious prosecution; and to maintain that action there should be the concurrence of two things—malice, and the absence of reasonable and probable cause. If there was reasonable and probable cause for the prosecution this action could not be maintained. So, on the other hand, if there was malice, or no reasonable and probable cause, the action could be maintained. If the party was not actuated by malice this action could not be maintained. It was necessary for him to determine whether in this case there was reasonable or probable cause, and he was disposed to think, as at present advised, that there was none. In consequence of the dispute about the rights between Captain Austin and the public, his selection of a criminal instead of a civil proceeding was much to be deplored; and having referred to the Act, the Judge pointed out that persons taking away oysters in the manner described in the informations, were charged with felony. He had stated his opinion earlier in the case, that to resort to a criminal proceeding was an utter perversion of the Act of Parliament, where parties claimed *bona fide* rights; and there was a *prima facia* right in the public to fish in the sea up to high-water mark, of which right they could not be deprived until it was proved that the ground was in the possession of a private individual. The proper way to establish that right was by a civil proceeding, to which he (the learned Judge) would not further allude. If the rights claimed by the respondent were not concurred in by the public, and if they went on disputing, although the claimant of the private right held a licence—still, if that contention went on, the right should be established by the party in a civil court, before he was justified in taking a criminal proceeding. In this case there were two conterminous fisheries—one was a private fishery, the other was a public fishery, which the public had been fishing upon up to the limits of the Garvey fishery, whatever they were. These limits were not very clearly laid down, at least anteriorly to the licence. There was a dispute as to the limit of the private fishery; and so long as matters lay in that state, he should hold that the proceeding by the respondent was a very improper proceeding—a proceeding that he should characterize as destitute of reasonable and probable cause, but still more that he should characterize as one exceedingly uncalled for—taking these people upon a warrant instead of taking them before the Petty Sessions. There was no reason to apprehend that the people would have fled the country—no reason that they would run from justice. But there was every

reason to believe that, rightly or wrongly, they felt they had a right to do what they were doing; and that being so, he should repeat that it was a rash thing to arrest these people instead of taking them to the Petty Sessions. The Magistrates who subsequently refused to return these people for trial, acted with very proper discretion in not doing so; and if these people were returned to this court for trial, he would, on the evidence which he had before him, direct their acquittal on two grounds—first, that there was not reasonable or probable cause; and secondly, the limits of this fishery were not marked or known as such. In order to bring a case under the criminal section of the Act it was necessary that the oyster beds in question should have been marked out, and known as such in one way or another. If the limits be not marked, and if they be inaccurately marked, which was worse—if they were not known—not accurately known—for that was the meaning of the Act of Parliament—a criminal proceeding could not be sustained. That being so, he could not, as far as the evidence which came before him went, say that the limits of the Garvey fishery were "marked out, or known as such." Why were they not marked out? The very evidence showed him that it was for this purpose the licence was obtained. After getting the licence the boundary was marked, but it was inaccurately and erroneously marked, and it remained in this condition until the fishing took place on which this proceeding was grounded; it remained down to that inaccurately and erroneously marked. It was not, therefore, marked out—meaning accurately marked. Another question arose, and it was this—were the limits of this private fishery known? Were they known so as to be notorious? He was clearly of opinion that they were not; the very application for the licence showed that they were not. If he was to dispose of this on the existence or non-existence of reasonable or probable cause, he would decide that there was not reasonable cause, and that the arrest of these people was a rash and hasty proceeding. He could not, however, make a decree in this case, unless he was satisfied that Captain Austin was actuated by malicious motives; but the malice was not to be understood in a matter of this kind in its evil sense. If the party made use of the criminal law purely for his own purposes, not for the sake of public justice, but for reasons and purposes of his own, on account of disputes with persons with whom he was in conflict, he was guilty of malice; and, accordingly, if he believed that Captain Austin did swear informations to deprive these people of their liberty; if he believed Captain Austin thought they had acted *bonâ fide*—that they had a right—he (the Judge) would say that there was malice. On this point he thought these actions failed. He heard Captain Austin give his evidence on the table in a manner that made him give it infinite credence. He swore he believed at the time that these people knew perfectly well, on the 7th October, that they were fishing where the public had not any right—that they were fishing on the Garvey fishery, where he had laid out thousands—that over and over again he had seen them attempting to fish there—that they were chased off every time, and that they never once resisted when his men came to chase them away. Therefore he would say that he would not take for granted that Captain Austin believed in his mind that the people believed they had a right, and he could easily believe that there were reasonable grounds for his being of the opinion that the people had no right to fish. Again, there was the proceeding for taking out the licence; that proceeding was taken on the ground that the Garvey bed was a private one, and this extension was to be within its limits. All this was discussed, and the people were present; the decision of the Commissioner, who was about to report the case in Dublin, was known; the licence of the authorities was afterwards obtained; notice of this was sent around the country, to show that this was part of the Garvey fishery, where the public had no right. That was not conclusive, however, on the public if they still felt they had a right to go there. But it was a strong reason to lead Captain Austin to the belief that they had no right. After chasing them away they were present at the meeting. Believing that that was the opinion of Captain Austin on that occasion, although he (the learned Judge) believed Captain Austin acted rashly; although Captain Austin might have acted without reasonable or probable cause; although he believed the Magistrates acted properly in not sending the case for trial, yet he could not decree, and he would affirm the dismiss in the six cases.

JOHN P. BROPHY.

March 20, 1865.

Tanrago, Ballysodare,
March 14th, 1866.

SIR,—I request you will submit to the Commissioners of Fisheries the following statement:—

At the late Assizes held in Sligo, Sir Robert Gore Booth, bart., prosecuted certain parties for dredging oysters on a bed given to him by licence from the Commissioners. The prosecution failed, on the ground that previous to the granting of said licence the public had enjoyed a right of fishing there. It thus appears that a licence regularly granted by the Commissioners can be at any time set aside if parties are found to swear they had dredged on the site.

I wish to ask the Commissioners have I any means of asserting my rights under the licence recently granted me by them, and if not whether they are prepared to seek from Parliament power to make a final decision in such cases with a full confirmation of previous grants?

If not there is no use in my going to the expense of laying down oysters which may be at any time taken away, and without redress, according to the law, as laid down by Justice O'Brien, who thus interprets the concluding portion of the 41st section of the 13th & 14th Vic., cap. 88.

I am, sir, your obedient servant,

R. G. VERSCHOYLE.

To E. Hornsby, esq.

APPENDIX, No. 9.

Alleged Arrear of Funds.

STATEMENT as to ALLEGED ARREAR of FUNDS for the PROMOTION of the SEA FISHERIES, IRELAND.

COPY LETTER to GEORGE ALEXANDER HAMILTON, esq., Treasury.

2, Craven-street, Strand,
3rd May, 1865.

MY DEAR SIR,—The claims put forward before the Taxation Committee for a large arrear of funds available for the promotion of the sea fisheries of Ireland were so confidently entertained by the Chairman and other members of the Committee, and so fully sanctioned by the opinions of the Dublin press, that I hesitated before I should deliberately report my conviction that the claim was utterly groundless. It became necessary for me to communicate with the office in Dublin; and I am now enabled to furnish a detailed statement of the whole matter, which I beg to submit. If it shall appear to more competent judges that my view of the case is correct, it will be desirable that the impression made upon the Committee be removed before they shall have reported.

You will find in the last page of the enclosed paper a copy of a leader from the Dublin *Irish Times* of Monday, which seems to take the whole affair as admitted, and leaves the public to believe that there is a fund immediately available of £170,000. The article states :—

"If the Board of Irish Fisheries should not now think proper to take the opinion of Her Majesty's law advisers upon the validity of the grant of £5,000 a year, the Irish Executive should do so. The Select Committee upon the Taxation of Ireland, if it has performed no other service, deserves the gratitude of the country for having elicited so much and so important testimony respecting the condition and wants of the Irish fisheries. It lies within the scope of their commission to ascertain the fate of this £5,000 a year, and to secure not only the future annual payment of this sum, but the recovery of the arrears of thirty-four years."

I am, my dear sir, very faithfully yours,
J. REDMOND BARRY.

George Alexander Hamilton, esq.,
The Treasury.

Mr. BARRY'S REPORT on the QUESTION of ALLEGED ARREARS.

Adelphi Hotel, London,
29th April, 1865.

Several statements in reference to the sea fisheries of Ireland have been recently made to the "Select Committee" now sitting on "the Taxation of Ireland," and the department having the charge of administering the sea fishery laws in Ireland, have been accused of withholding certain funds which are said to be available for the encouragement of the deep sea and coast fisheries, or of not having called for those funds from the Government.

Under the Act 59th Geo. III., cap. 109, sec. 66, an annual sum of £5,000 was placed at the disposal of the Lord Lieutenant to be paid to the Commissioners of Irish Fisheries appointed under the same Act, to be applied in the encouragement of the coast fisheries during the continuance of the Act, which under the 68th section expired and ceased to be in force in five years from 1819.

In June, 1824, another Act was passed, 5th Geo. IV., cap. 64; sec. 2 revives the several bounties from the 5th July following, being the period of the expiration of the last recited Act of 59th Geo. III., and continues the said bounties to the 5th July, 1829; and the 9th section of the Act of 1824 also continues the grant of £5,000 a year, restricting its application to "encouraging and assisting the building or repairing of piers or quays, except only the sum of £500 for providing materials for the repair of the boats of poor fishermen."

In May, 1826, another Act was passed, 7th Geo. IV., cap. 34, continuing both preceding Acts to 5th of April, 1830.

In June, 1829, a short Act passed, 10th Geo. IV., cap. 33, to facilitate the recovery by civil bill, and at petty sessions, by the Commissioners, of loans made to fishermen for which promissory notes had been taken, not exceeding £10, limiting the costs, and by the 4th section declaring—"That it shall and may be lawful for the Commissioners of the Irish Fisheries, so far as the extent of the funds vested in them for the encouragement of the said fisheries will admit thereof, to enter into any contracts for the erection of any piers, or for the advance or repayment of any loans under the said recited Acts, although the time necessary for the completion of such works, or for the repayment of such loans, may extend to a period beyond the 5th day of April, 1830."

The next Act was in July, 1830—after the full expiration of the former Acts—1st Wm. IV., cap. 54.

The 6th section of this Act, referring to the former expired Acts, enacts*—"And whereas for the purposes hereinafter mentioned, it is expedient that all the powers of the said Commissioners of Irish Fisheries should be transferred to the directors of all works relating to inland navigation in Ireland for the time being: be it therefore enacted, that from and after the passing of this Act, all and every right, title, and interest of the said Commissioners of Irish Fisheries, and all powers and authorities vested in them in or by the said recited Act of the 59th year of His said late Majesty, or in or by any other Act or Acts in force immediately before the said 5th day of April, shall be transferred and conveyed to, and the same are hereby vested in, and shall be exercised by the directors of all works relating to inland navigation in Ireland for the time being," &c., &c.

The next or 7th section authorizes the Lord Lieutenant to appoint and employ any other persons for the completing the erection of any pier which shall have been begun, or for the repayment of any loans which shall have been advanced for the encouragement of the Irish fisheries at any time previous to the 5th day of April, 1830, under any Act or Acts in force immediately before that day, and in general for the managing and concluding of all concerns, matters, and things which shall have been commenced under the authority of the said Commissioners of Irish Fisheries, and which shall not have been brought to a conclusion before the passing of this Act.

The 8th or next section authorizes the Lord Lieutenant, during a period of five years from the 5th of April, 1830, from time to time, to direct any sum or sums of money, not exceeding the sum of—

£
4,500 in the first year,
3,500 in the second year,
2,500 in the third year,
1,500 in the fourth year,
1,000 in the fifth year,
13,000

* See the whole previous part of this section.

to be issued and paid to the Directors of Inland Navigation—"To be applied in completing any piers which shall have been begun before the 5th day of April, 1830, and in paying such officers as shall be necessarily employed in and about or relating to the completion of such piers, or in relation to the repayment of any loans made and lent before the said 5th day of April, 1830, or in or about any matters relating to the said fisheries, and requisite to be done for fulfilling the purposes of this Act."

The 9th or last section of this Act gives to the Directors of Inland Navigation all the powers of the Commissioners of Fisheries—"For the purposes of this Act, and for the payment of all bounties which may have become payable at any time before the said 5th day of April, 1830, and for the performance of all matters and things relating to such bounties by the said Acts granted, or any of them."

The Public Works Act, 1st and 2nd Wm. IV., cap. 33, transfers to the Commissioners of Public Works appointed under that Act by the 106th section, all powers vesting in the Directors of Inland Navigation, and directs the payment of the several yearly sums for five years to the new Board—"For the completion of piers and any and every purpose in any of the said Acts mentioned, to the Commissioners for the execution of this Act, instead of the Directors of Inland Navigation."

We now come to the next measure of legislation relating to the Irish fisheries, the 5th and 6th Vic., cap. 106.

The 1st section in that Act states—"Whereas it is expedient to consolidate and amend the several Acts now in force in Ireland relating to the fisheries thereof, and that for such purpose all enactments now in force in Ireland relating to the fisheries thereof should be repealed."

Then comes the special repeal of twenty-five Acts, from the reign of the fifth Edward to the first and second of Victoria, including the four Acts to which I have especially referred herein.

All those Acts, so far as they relate to Ireland, have been by this section repealed, with only the following qualification or provision :—

"Provided always that nothing herein contained shall be construed to repeal any enactments or provisions of the said Acts, or any of them, which relate to piers or quays, or assisting poor fishermen, or any powers in respect thereof now vested in the Commissioners of Public Works in Ireland, or any moneys applicable to such purposes in the hands of the Commissioners of Public Works; but that all such enactments and provisions relating to piers or quays, or to the assistance of poor fishermen, and all such powers in respect thereof, or of the application of the moneys applicable to such purposes, shall remain of full force and effect."

This provision in the repealing section of the 5th and 6th Victoria, constitutes the foundation for the claim now made for a continued grant of £5,000 a year for the encouragement of the coast fisheries, and an assertion "that the accumulated sum since 1842 should be now available to the same purpose."

A parliamentary return, No. 563, furnished in July, 1864, and attached to this paper, will show that of all the moneys which came to the hands of the Commissioners of Public Works as the successors of the Directors of Inland Navigation, under the several statutes before referred to, there remained a balance of £711 7*s.* 2*d.*, the whole of the funds having been administered in conformity with the terms of the Act, 1st Wm. IV., cap. 54, in completing the engagements, finishing the piers and quays, and generally winding up the affairs and concerns of the old commission, which was finally extinguished on the 5th April, 1830.

This seems to me to have appeared to be the full and clear intention of the Legislature in the several statutes passed since 1830.

J. Redmond Barry.

APPENDIX.

Alleged Arrear of Funds.

RETURN showing the AMOUNT directed by the LORD LIEUTENANT of IRELAND to be paid to the COMMISSIONERS of IRISH FISHERIES, pursuant to the Act 59 Geo. III., c. 109, and the AMOUNT applied by said Commissioners for the Encouragement of COAST FISHERIES in each year from January, 1820, to January, 1864, inclusive; stating the manner and under what regulations such sum or sums of money have been applied; and showing the number of Applications, and by whom, made to such Commissioners for money to be applied to the encouragement of such Coast Fisheries, and the mode in which it was proposed such encouragement should be given, and the result of such Applications in each year during the same period.

[Furnished by order of the House of Commons, upon the motion of Sir Edward Grogan.]

SEA FISHERIES (IRELAND).

The Act referred to in this Order, 59 Geo. III., c. 109, was repealed by 1 Wm. IV., c. 54, s. 5; and ceased to be in operation in the year 1830.

It appears by a return to Parliament, made in obedience to an Order of the Honourable House, Par. Pro., dated 1st July, 1842, No. 394, that from the passing of the Act 59 Geo. III., c. 109, to its repeal, the amount issued for the encouragement of the coast fisheries was £259,358 6*s.* 6½*d.*

This amount was expended under the following heads :—

	£	*s.*	*d.*
Bounties,	163,376	7	5½
Salaries and Travelling Expenses,	68,132	12	6
Improvement and Construction of Piers and Quays,	20,759	9	7½
To poor Fishermen, for repairs of Boats and Tackle,	5,421	13	10
For new Boats built,	1,658	3	2½
	259,358	6	6½

The details of this expenditure can only be obtained through the records of the former Fishery Department, not in the possession of the present Fishery Commissioners.

	£	*s.*	*d.*
From 1830 to 1842.—The winding up and management of the Sea Fisheries of Ireland, vested respectively in the Directors-General of Inland Navigation and the Commissioners of Public Works in Ireland, to whom the fishermen's notes and the balances of loans and contributions to the erection of Piers and Harbours were transferred, amounting to	23,317	14	6
Together with an augmentation pursuant to the terms of 1 Wm. IV., c. 54, amounting in five years to	13,000	0	0
	36,317	14	6
Of which there appears, by the return dated 1st July, 1842, No. 394, to have been expended up to 10th June, 1842,	28,138	14	10
Leaving then a balance of	8,178	19	8
Of this balance, pursuant to 1 Wm. IV., c. 54, there now remains in bank	711	7	2
Consequently there has been expended out of this old fund, since 10th June, 1842,	7,467	12	6

1842.—The 5th and 6th Vict., c. 106, passed on the 10th August, 1842, and its several amendments, have constituted the laws under which the fisheries of Ireland have been since managed. Neither that Act nor any subsequent one conferred upon the Lord Lieutenant any powers to pay to the newly-formed Fishery De-

APPENDIX.

Alleged Arrear of Funds.

partment (the Commissioners of Public Works) any amount for this or any other purpose.

The second section of that Act authorizes the Commissioners, with the consent and approbation of the Commissioners of Her Majesty's Treasury, to appoint inspectors, clerks, and other officers, and to pay them, but does not sanction any other expenditure.

Numberless applications have from time to time been made to the Commissioners, both by letters and personal interviews, for pecuniary aid for various purposes, and for cases of extreme distress among the fishermen; but the answer has been invariably and necessarily—no funds available.

During a season of great distress in 1846, the Lords of the Treasury placed at the disposal of the Commissioners a sum of £5,000 from what was termed, "the Irish Reproductive Loan Fund," for the establishment of a certain number of curing stations for training the fishermen in superior modes of curing fish, and for making loans for fishing tackle. They were discontinued after the experiment had been tried some time.

	£	s.	d.
Amount advanced from Loan Fund,	5,000	0	0
Returned to Treasury in February, 1863,	876	6	1
Total expended on Curing Stations,	4,123	13	11
In 1846, the Piers and Harbours Act, 9 Vict., c. 3, was passed. Under that Act and its amendment, 10 & 11 Vict., c. 79, grants amounting to £90,000 were authorized to be issued in aid of building fishery piers and harbours. Of this sum there has been expended by the Board up to January, 1864,	75,345	5	9
Nearly the entire balance has been allocated; and there has been issued out of the Board's Loan Fund the sum of	37,474	11	0

The whole of this latter sum is in course of repayment by counties and individuals locally interested in the works for which the money was advanced by way of loan.

E. HORNSBY.

Office of Public Works, Dublin,
21st July, 1864.

SUPPLEMENTARY REPORT AS TO ALLEGED ARREAR OF FUNDS FOR THE PROMOTION OF FISHERIES IN IRELAND.

Finding that this question has been recently raised at an evening meeting of the Royal Dublin Society, where Sir Edward Grogan, bart., presided, on the reading of a paper on the "Herring Fisheries of Ireland," by Mr. Andrews, and that he has still a full conviction that a sum of £5,000 a year of the late Irish currency is still in full force, unappropriated for thirty-five years, and that the late Lord Mayor of Dublin, Mr. Barrington, had calculated this arrear at £200,000, and that Sir Edward Grogan had fully confirmed the statements of both gentlemen, I have again turned my thoughts to the subject, and devoted the most intense consideration to all its bearings, in the earnest hope that I should find my first formed impressions on the question erroneous, being fully confident that if it should be so, there would be a great probability of finding the Government very willing to entertain the question of inquiry into the foundation of the claim.

I have attentively considered the report made by me to the Treasury of the 29th of April, 1865; I have carefully collated the several statements made in that report with the several Acts of Parliament to which they refer, and I am wholly unable to retract a single word of the report, and am still fully convinced that the legal and equitable and rational interpretation of those statutes can bear no other construction than that there is no foundation for the claim, and that the 1st of Wm. IV., cap. 54, on the 16th of July, 1830, while as its title professed, it continued (but only to Scotland), a perpetuity in her expensive and valuable fishery establishment (bounties alone excepted), utterly extinguished every vestige of prospective encouragement to Ireland, providing only for engagements entered into, and works undertaken before the 5th day of April, 1830.

Sir Edward Grogan, while, in the most unqualified terms he stated "that Mr. Andrews had convinced him that Ireland was fully entitled to £5,000 a year for her fisheries, and which was allowed to fall into abeyance thirty-five years since; there were now about £150,000 due on that head, without interest—" (I quote from *Saunders*, 20th February), never contradicted, and while the honourable baronet referred to the proceedings of the Select Committee on Taxation of Ireland, in last session, it seemed to have escaped his memory that he, having been a most efficient member of that Committee, had actually moved a long paragraph on the last day of the Committee sitting, I think it was the 18th May, embodying in a detailed and ingenious statement the whole foundation for the claim of arrears of £5,000, and affirming the fact of its being still due, and that this proposition was "put and negatived."

It is true that the Committee, referring in the three last paragraphs of their report to the subject of the £5,000 a year for fisheries, have so far recognised the question as to have stated "whether the original grant of £5,000 a year is still in force or capable of effect, appears to your Committee to be a legal question of no small importance, and possibly of some nicety; your Committee strongly recommend that the question be submitted for the opinion of the legal advisers of the Crown.—1st June, 1865."

J. REDMOND BARRY.

Office of Public Works,
Department of Fisheries,
28th February, 1866.

Since writing the above, my attention has been directed to the 9th section of the 5th Geo. IV., cap. 64, which specifically defines the purposes to which the £5,000 granted under the 59th Geo. III., cap. 109, should be applied, and an inference is drawn that this direction gave a continuity to the grant, though the Act which granted it expired at the end of the next session of Parliament, which would be the session following this same 5th Geo. IV., cap. 64, or the end of the session of 1825, so that it was barely in force for a year after the passing of the 5th Geo. IV., in June, 1824.

But we find the 4th section of the 7th Geo. IV., cap. 34, *specifically reviving and continuing the unaltered and unrepealed provisions* of the 59th Geo. III., cap. 109, "*to remain in full force and effect until and upon the said 5th day of April*, 1830."

The following Act, 10th Geo. IV., cap. 33, 4th June, 1829, section 4, extends the period for contracts or for the completion of such works or for the repayment to a period beyond the 5th day of April, 1830; clearly marking that day again as the termination to all encouragement to the Irish fisheries.

Next comes the 1st Wm. IV., cap. 54, 16th July, 1830, which is strangely intituled "*An Act to revive, continue, and amend several Acts relating to the Fisheries*," but the main object of which was to continue to Scotland everything but bounties, and to provide for the collection of the loans made to poor fishermen in Ireland, and to provide for the completion of works which should have been commenced *before the 5th April*, 1830.

J. R. B.

APPENDIX, No. 10.

Norway Fisheries.

LETTER from J. REDMOND BARRY, Esq.

Office of Public Works,
1st August, 1865.

DEAR SIR,

Finding, on my return to town, that you had taken your departure for the north, and supposing that you have by this time reached your destination at Bergen, it struck me that it may not be amiss to remind you how much will be expected from this important mission. We, therefore, should omit no opportunity of rendering this visit a valuable source of practical information.

Although one can hardly expect to find in those northern latitudes the same progress of general improvement for which France is becoming so remarkable, I am strongly disposed to think that even a partially backward and uncivilized community, dependent for existence mainly on one branch of industry, must become more expert, and must have acquired from experience more knowledge than could be found in more highly civilized quarters, where there existed more numerous sources of profitable employment.

You know how deplorably ignorant we are upon many important points which are unsettled subjects of contention between the different classes of fishermen, and how very important it would be to be furnished with such practical information as should enable us to test by the experience of other countries the effects of those modes of fishing complained of here as over-exhaustive—of course making full allowance for the more abundant supplies which are found in Northern latitudes, and for the great difference in temperature. It is at length admitted that there is no possible reason why, what we call sea-fish, should not require, like salmon, a period of rest for reproduction and recovery.

I find by an article in the July number of *Chambers* on 'The Loffoden Isles.' which I send you herewith, that the Norwegian fishers had at one time attributed to steam navigation a dearth of fish, which was soon traced to other causes; but that they now rarely commence fishing till very near Christmas, and about the end of January more than four thousand boats, with crews amounting to twenty thousand persons, are assembled. The most agreeable feature in this scene seems to be the unity of purpose and of feeling, and the cordial spirit of co-operation which prevails amongst the vast assemblage. The weather, of course, is wild and variable, but, each morning, a signal is hoisted when the weather is such that the boats can venture out. 'Towards the end of March the spawning season commences. The greatest quantity is taken at this time, and towards the beginning of April it perceptibly decreases, and by the middle of the month the season is over.'

It would therefore appear that in this fishery there is a close season of nearly nine months, including the very fine weather in spring, summer, and autumn, and leaving only those wild and stormy months when danger is at its full.

The ignorance which is said to prevail as to the quarter from whence the great shoals of cod-fish come is remarkable, as well as the fact that they are never seen below the small Island of 'Rost,' the most southern of the Loffodens. Can this be a preference to a very cold temperature, and is it a reason why we in the south have so much a more limited supply?

The only restriction that I can see referred to is against 'laying down nets in the daytime.' Does this mean that they are not to continue set during the day?

Although there is a rough account given in the paper of the engines used, I need hardly remind you of the importance of having minute knowledge of the size of the meshes, the dimensions of each net, the material of which composed, the nature of the preservative used—whether *bark*, *catechu*, or other matter, with, by all means, a small piece of the netting, and specimens of the lines and hooks used, with all possible particulars as to the nature of the bait used.

The great depth of water where the cod fishery prevails probably precludes the use of any species of trawl or ground drag net, and no mention is made of any other than cod-fish. Are there turbot, soles, plaice, and other flat fish, and how and at what seasons are they taken?

Can you procure copies of any national laws for the regulation of the fisheries; and are there any conventional regulations which are observed by the several fishing communities.

As there is at present a great 'note of preparation' for the establishment of joint stock companies, it would be well if you could ascertain whether any such associations were formed in the north, and under what circumstances, and with what success; and if possible for you to procure copies of the prospectuses or general regulations, but most especially the nature of the arrangements between the companies and the operative fishermen as to remuneration, whether by shares of the fish taken, or by fixed wages.

Other publications which I have consulted state that Bergen alone exports annually, '2,000,000 of specie dollars' worth of stock-fish, 500,000 barrels of salted herrings, and 20,000 barrels of cod oil, together with large quantities of spawn and fish scales to the south of Europe, where they are used as baits for the fishery of sardines in the Mediterranean.' Query—What is meant by *fish-scales and spawn?*

As the quantity of herrings exported would seem to exceed the whole export from Scotland and the Isle of Man in 1864 (364,507 barrels), one would like to know how they stood as to quality; whether gutted or otherwise; whether carefully packed and barrelled, and whether fir timber was used in the barrels, and whether stamped by any official brand or only by the name of the exporter? *Where sent* chiefly, and what the ordinary price?

The next subject to which I would beg your attention is the kind and general price of salt used for the cure of fish, native or imported; if the former, where, and how manufactured, whether by artificial heat, as in this country from rock salt, or as in southern climates by absorption from natural heat, from sea water, if so, particulars of process.

I find that no place is more remarkable for the lobster fishery than Norway; they are brought alive to the London market. I think they chiefly come from 'Stavanger and the Naze,' near the Skager Rack, but are also taken at Bergen; ascertain the mode of capture, and, if there be anything new in the construction of the lobster pots, bring a pattern or a drawing. The general knowledge as to the natural history of that fish must be best known where it abounds, and it has probably been the subject of regulation as to season, &c. I have never been able to find any satisfactory information on the subject later than the days of Pennant, 1797, all that you can learn must be interesting, and may aid us in suggesting regulations which may be tried to prevent exhaustion and to secure a more constant supply than we receive at present from our own shores. I have had numerous remonstrances from Connemara and other places about *over fishing* out of season, and suggestions for some regulation for a simple and inexpensive clip upon the claws to prevent the effects of their very pugnacious tendencies during transit to the several markets. The whole subject is of greater importance than it may seem to persons unacquainted with the present extent of the trade and its capability of improvement in various ways.

You are in the land of ice, and I would therefore request of you to extend your inquiry to this article, now become so very important to our fisheries; whether it is much used with fish and how; whether any means are required for preserving it during the hot season by any peculiar structures, such as ice-houses; what the general price is during the season when it abounds, and at what rate of freight it can be delivered in any of our ports.

Our friends in Dawson-street will, I am sure, not consider it an undue encroachment on their province, if you can obtain any interesting information calculated to enlarge the very limited knowledge we have of the habits and general history of the salmon, chiefly as to restraints by close season and by the abridgment of the means of capture by productive or, as they have been decreed, *destructive engines*, the general size and weight, the opinion generally entertained by the most intelligent persons on the still disputed question of the *parr*, and still more doubtful question of the length of time which intervenes between the descent of the fry and the return of the grilse.

I can find nowhere any account of oysters in the northern estuaries. I suppose the temperature would not suit their tastes.

I am afraid that I have been more diffuse than was necessary, and I am quite sure that I have mentioned several matters which would not have escaped your own intelligent mind; but, as my advanced years and not very robust constitution have prevented me from availing myself of our Chairman's offer; and as I have unhesitatingly pledged myself that the mission could not be committed to better or more efficient hands than yours, I feel more than ordinary interest in its success.

Believe me to be very faithfully yours,

(Signed), J. REDMOND BARRY.

J. P. Brophy, Esq., Bergen.

APPENDIX, No. 11.

NOTES on the FISHERIES of NORWAY.

Preliminary.

In submitting the following memorandum on the subject of the fisheries of Norway, and the Exhibition of fishery objects at Bergen, in August, 1865, at which Exhibition I had the honour of being deputed by the Commissioners to attend, I beg to state that my information has been derived from most reliable sources, from personal observation, and from intercourse with the parties engaged in the fishing trade, and obtaining a livelihood from it. I must at the outset refer to two difficulties with which I had to contend, and which I conscientiously endeavoured to overcome or counteract—a want of acquaintance with the language of the country, and an absence of any book of reference or printed authority on the subjects to which I am about to refer. Guide books and tourists' directions I have seen; but they contain nothing on the matter in hand. They give a pretty good idea of what one may expect in the way of eating, drinking, and sleeping, but, so far as I have seen, they do not profess to be an authority on the industrial position and relations of the country.

The physical conformation and circumstances of Norway make it essentially, and as a permanent habitation for man, a fishing location. If it had not its innumerable protecting islands on the west, tranquillizing the waters of an ever-troubled and boiling sea; its vast fiords, bringing that sea and its inhabitants into the very centre of one of the oldest mountain ranges in Europe, and tempering the rigidity necessarily consequent on a high latitude and great surface elevation; harbours which the expenditure of all human wealth and skill could vainly hope to rival, Norway would be indeed a barren waste. The unceasing erosion of her mountains yields but little or no fertilizing matter to a naturally unfertile lowland; the labour of her children, if hundred handed, could not extract from the soil as much food as would supply one-fortieth of her present inhabitants. Hence the Norwegians have been necessarily thrown upon the water for food and the other things needful, and from that element they have reaped golden harvests. They were formerly and in ruder times kings of the ocean; now they are its peaceful and beneficent conquerors, deriving from it what the stubborn land refuses, and making it subserve to their own wants, as well as to those of a vast number of other people who inherit a more genial clime, and are rich in agricultural wealth.

Approaching Norway on the south, a stranger, unless he be from some very flat or low-lying country, sees nothing of a singular or striking character in the height or contour of the hills. The coast is jagged, and in many places deeply indented; there is no speck of vegetation on the heights, which present a hard inhospitable, and weather-worn aspect, for the most part irregularly rounded, but occasionally running up into splintery peaks or sharp ridges. There is no marked geological feature to compensate for the absence of sublimity or vegetation; there are only, and at no grand elevation, the old granite, gneiss, mica schist, and quartz formations, with which we of Great Britain and Ireland are so familiar, and a stranger such as I have alluded to must experience a feeling of disappointment at this first view of a Norwegian coast. But this feeling cannot be of long duration. He suddenly enters a fiord where the sea, for miles on miles, has triumphed over the land; the hills tower into precipitous mountains, clothed with forests of beech and pines; the angry waters become smooth as a glassy lake, broken only by the plash of the fisherman's oar; the golden sunlight is reflected from a thousand peaks in a thousand fanciful forms; and the spectator sees before him, in his ever winding course, nature in as grand an aspect, and in such constantly varying and beautiful forms as must stir the heart of the most phlegmatic, and satisfy the eye of the most exacting.

I sailed from Leith on the morning of the 27th July; reached Christiansand on the 29th, where I had to remain two days for the boat from Christiania; and entered the Bergen roads early in the morning of the 2nd August. It was about six o'clock as we approached the mouth of the harbour, and the water was dotted over with innumerable skiffs and praams, all bent in the direction of the town, and each making a triple line of wake, which to me was a hydraulic paradox.

My luggage having been examined by the custom-house authorities, I dropped into a boat, and having got quarters with difficulty, owing to the crowds of strangers in town, arrived for the Exhibition, I made my way to the fish market, its position having been indicated by the direction taken by the fishing boats. There I witnessed a scene altogether new. The fish —except the larger kinds, cod, hake, ling, and holibut —were swimming and jumping in large tubs filled with water, and either deposited on the quay or still remaining in the boats; crowds of women in every variety of costume struggled with each other for precedence, and chaffered about the prices; and when each bargain was concluded, after much expostulation on both sides, a beech twig, of which there was a supply in each boat, was run through the gills and mouths of the fish, and the still wriggling lot was carried off in triumph by the apparently satisfied purchaser. The quantity of fish thus sold every morning, and particularly on Wednesdays and Saturdays, is very large and very varied in kind. The Bergen people live to a very great extent on fish; it is dressed in every possible way, and served in profusion at every meal.

Leaning over a rail at the quay side, I soon became aware of the nature and object of the floating pieces of wood that followed at the stern of the boats. They were small well-boats, or viviers, in which the smaller kinds of fish (haddock, whiting, flounders, dabs, bass, eels, &c.,) are brought alive from the fishing ground. They are from 4 to 5 feet long, and about 1 to 2 feet deep; boat, or nearly coffin shaped; flat at top and bottom; and through a square opening or two on the top, covered when in the water by a board which turns on a pivot, the fish are taken out and placed in the tubs for sale: the sides and bottom are perforated to admit the water.

Bergen contains about 30,000 inhabitants. It is situated about nine miles from the open sea, on the western side of a capacious harbour, sheltered from every wind by hills which rise to a height of from 500 to 2,000 feet. The houses, which are built of wood on a foundation of dry rubble stone, are capacious, well lighted, and cheerful in appearance. Great attention is paid to the painting of the exteriors, and almost every window is furnished with a row of flowering plants in ornamental pots and boxes. There is a plentiful supply of water and gas; the streets are clean and well kept; everywhere there is an appearance of comfort and wealth; the trade is vigorous and progressive; the huge fish warehouses are gigantic monuments of the industry of the people; and while fish and fish curing constitute the great commercial wealth of the town, the burgh is well represented in ship building, rope making, coopering, iron work, and all those trades and occupations which wealth and civilization demand.

Fisheries.

Legislation as to the fishing in Norway has been confined to the salmon, cod, herrings, lobsters, and oysters. There is neither a central administrative board nor a system of local inspection, except to a

limited extent in the cases of the great cod and herring fishery, which is superintended by a body of marine officers, who attend at these fisheries accompanied by a certain number of judges and jurors, for the maintenance of order and the enforcement of the regulations. All else is left to the ordinary tribunals, and to the action of those officers who are intrusted with the administration of the general laws of the country.

Salmon Fishery.

The law for the regulation of the salmon and trout fishing passed the Storthing, and received the royal assent on the 23rd May, 1863. It is based on the principles of the English and Scotch laws, and is to the following effect :—

1st. Between the 14th September and 14th February in each year no person shall catch or kill salmon or salmon trout by any means whatever, or use or place any implement of any kind for that purpose.

2nd. Besides this annual close season, there is a weekly close time from six o'clock on Saturday evening to six o'clock on Monday morning, within which no salmon or trout shall be taken by any engine whatever.

3rd. The King can by an order completely prohibit the catching of fish at the mouth of any river frequented by salmon or trout in any district, or the use of any mesh less than 2¼ inches between the knots; such districts to be defined in the order.

4th. In fiords, on the coast, and at the mouths of rivers frequented by salmon, and so far up the rivers as salmon or trout can run, no net can be used of less dimensions than 2½ inches between the knots.

5th. In other engines or modes of capture there must be ten openings of not less than 2¼ inches. If wooden bars be used in an engine, these bars must be 2 inches apart.

6th. At the mouths of rivers the use of cross-lines by which young salmon or trout can be caught is at all times prohibited.

7th. There shall be no offer for sale, buying, or having in possession salmon or trout in the close time, under the same penalty as for fishing, nor shall salmon or trout of less than eight inches long be offered for sale at any time.

Penalties.—For first offence, half a dollar to ten dollars; second, two dollars to twenty; and for every offence afterwards, five dollars to thirty, besides the forfeiture of the implement used.

8th. These regulations not applicable to rivers not frequented by salmon, although these rivers may be frequented by salmon trout.

9th. By this Act the laws of 1848 and 1857 are repealed.

These are the chief regulations. There is no provision for assessment or protection, and no special officers to superintend the fishery or carry out the law. The enforcement of the law is left to the ordinary officers and tribunals; the protection to the action of the persons individually interested.

I understand that this law is almost wholly inoperative; that the rivers are mercilessly hauled, in season and out of season, by every species of net and mesh; that all kinds of engines are used in the rivers and at their mouths; that the fish are extensively killed on the spawning beds; that there is no protection by individuals, except in very few instances; and that the truth of the adage, "what is everybody's business is nobody's," is year by year manifested by the increasing deterioration of the salmon fisheries. This is greatly to be regretted, and is loudly complained of by those who pay large sums for rivers for sporting purposes; while in a commercial point of view, unless this state of things be altered, Norway salmon, outside Norway, will be amongst the things that were. The salmon of this country is very fine; it is very similar in shape, size, and flavour to our Limerick salmon. The export trade is almost altogether with England, whither it is sent in ice, and a small portion kippered. In this latter condition it is eaten very largely in Norway, without being subjected to any cooking process. The construction of salmon passes would effect a wonderful revolution (protection being established), for the fosses on the salmon rivers are very numerous; and I am happy to say that the Commissioners' models at the Exhibition have had the effect of directing attention, which I hope will have its practical results, to this important and, in many cases, absolutely necessary means of maintaining and promoting the salmon fisheries. Experiments have been recently made to a limited extent in artificial reproduction, according to the most highly recommended plans and modes of proceeding; but the determination of this highly interesting question by practical results rests, as in other countries very much experimentally older, with that future of which so much is expected, but which as yet has given "no certain sign."

Cod Fishery.

The great productive industry of Norway is the cod fishery, which affords employment and subsistence to not less than 60,000 persons in capture and curing, independently of those engaged in the carriage and transport of the fish. The cod is taken in greater or less quantities along the coast from Bergen to North Cape, which is about 71° north latitude, and 26° east longitude; but the great fishing districts are Loffoden, Finmark, and Romsdal-Söndmöre. The fish caught on the other parts of the coast are considerable in quantity, but are chiefly used for local consumption, and are not regarded as contributing anything to what is known as the great cod fishery of Norway. The following are the principal regulations affecting this fishery :—

Certain officers of the navy and special judges of districts are appointed by the Government to attend at the fishing ground for the maintenance of order, and to adjudicate upon differences, collisions, &c.—This, although a general provision of law, is only fully carried out at Loffoden; the superintendence at Finmark and Romsdal being almost nominal.

Every chief or captain of a boat is, at the commencement of the season, bound to make a declaration before the Government officer as to the crew, tonnage, mode of fishing, and submission to the fishery regulations.

On Saturday evening, and the evening before every holiday, all fishing implements must be taken out of the water, and not again placed therein until two hours before sunset of the Sunday or holiday.

No net is allowed to remain set during the day, but the other modes of capture by hand and long line are permitted both by day and night.

The fish dried as stockfish must not be taken down from the drying sticks before the 12th June, and any person receiving them when taken down before that time is subject to a penalty.

No round-cured or stockfish is allowed to be placed or hung on the drying poles after the 14th April.

Early each morning, and at an hour fixed according to season, a signal is hoisted for the boats to proceed to sea and lift the nets, and any boat putting out for that purpose before the signal is given is subject to a heavy fine. Again in the evening another signal is given of permission to shoot the nets, and the laying of nets before that signal is subject to a penalty.

These are the regulations under which this fishery has been carried on since 1857. There is no restriction as to mesh or size of net, nor any limitation to the employment of fishing engines, except the daylight use of nets, and the use of any implement on Sundays and holidays.

Before 1857 certain fishing grounds were allotted to certain communities, and the sea was, as it were, divided into districts, in which each community had an exclusive right of fishing; but this arrangement was found to be a prolific source of trouble and contention; for, coupled with the difficulty of forming well defined lines, was the natural tendency of the fisherman to run into his neighbour's waters when he found a scarcity

of fish in those allotted to himself. In 1857 the waters were made free to all natives, and the present arrangements came into effect. Strangers are not allowed to fish on the great cod banks, but they are on other parts of the coast, and occasionally Swedes and Dutch come upon a bank about 90 miles off Aelsund, which is about 150 miles north of Bergen.

About the middle of December the fishery preparations commence with a general attention to the fishing gear. Towards the end of that month experimental dips are made with the hand line; and some time in January, early or late, the shoals appear, and the Lofoden, Finmark, and Romsdal-Söndmöre boats are on their respective grounds and at full work.

The boats are all open, and chiefly of squaresail rig; but some have a spritsail, foresail, and mizen. They vary in length from 15 to 40 feet over all; the largest size are about ten tons. Some of the better class are built of oak; but by far the greater number are made of fir or pine, and coated with boiling Stockholm tar, giving them the appearance of having been covered with a bright varnish. The boats of different localities are made on different models; some are very long and narrow; others are of great beam (more than one-third of the length); but nearly all are sharp at stem and stern, rising high out of the water at both.

The number of boats engaged in the great cod fishery may be taken at 10,000, and five the average number of men in each. In some cases the boat and gear belong to one individual, who employs a crew to fish either on shares or for wages; in others the boat and gear belong to the crew jointly, who divide the produce according to the proportionate interest of each. The cost of the boats is from ten to ninety specie dollars. A specie dollar is equivalent to about 4*s.* 6*d.*

The implements used are set nets and lines. The nets are about twenty fathoms long and four deep, made of strong hempen cord, and generally of seven-inch mesh; the head-rope is kept buoyant by hollow glass balls covered with small mesh network, and the foot-rope is weighted with leaden pellets, or stones wrapped up in bark; and at the end of each net, or train of three, is an anchor or grapnel at the bottom, and a wooden buoy and boy-rope at top. The net is thus kept vertically suspended in the water, and its distance from the surface or the bottom is regulated by shortening or lengthening the buoy-ropes according as the fish are ascertained to run high or low. As before stated, the net is set in the evening and fished in the morning, when the fish and nets are brought ashore; the nets are then spread out to dry, and while some of the men remain on land to cure the fish, others continue afloat during the day, occupied in the line fishing.

There are two kinds of lines employed—the hand line and the long line, or spiller. The former is usually furnished with either a single large hook or a pair of hooks, attached by the snood to a piece of iron wire about twelve inches long and a quarter of an inch in diameter, fastened at the middle to the end of the line, from which is also suspended a leaden sinker, either boat-shaped or cylindrical. Each man is provided with two of these when he uses bait, but only one when engaged in "pilking," a mode of fishing very usual, and performed by dropping the unbaited hook into the water, and paying out the line until the lead touches the bottom, when it is raised a few feet, and the fisherman continues to jerk it briskly upwards and let it drop again until a fish is hooked.

The long line is sómewhat similar to what is known in England by the term bulter or trot, and in Ireland as a spiller. It is formed of a principal line, nearly the thickness of window-sash cord, to which is fastened a series of snoods and hooks, from 60 to 200, small sized, and placed at such distances from each other as to prevent their becoming entangled. These lines are moored at their extremities to the bottom by stones or grapnels, and are either kept buoyant at a certain distance from the bottom by glass balls—in which case the snoodings are pendants from the long horizontal line—or the line itself lies at the bottom, and the snoodings are kept buoyant by glass balls placed about six inches from the hook. The extremities, and therefore position of the line, are marked by buoys attached to them by buoy-lines, and floating on the surface of the water. The length of the snoods varies from two to six feet; that of the line depends upon the number of hooks. The lines are placed across the direction of the current, and are drawn up at such intervals as circumstances and experience indicate to be sufficient. They are hauled up and rebaited frequently during the day, and in the evening they are finally dropped into the water, and not fished till the following morning; but it is then frequently found that if the fish have been long dead, considerable depredations have been committed upon them by other fish and by crustaceans. This mode of fishing is much more productive than that by the hand line; but it requires considerable outlay, and scarcity of bait is frequently an impediment to its progress.

The cod are generally found at a depth of from ten to sixty fathoms. As the presence of the barb below the chin indicates, the food of this fish is usually sought for along the sea bottom, and the number of crabs and long-tailed crustaceans of the lobster kind, so frequently found in the stomach of the fish, at once points to the bait which can be most successfully used. But crabs and lobster crustaceans are not always to be had in these seas, and the baits generally used are mussels, herrings, pilchards, and whiting. The largest number of fish are often caught when the sea is becoming rough, and a gale is threatening from the deep sea inwards. In Norway "torsk" is a generic name for all species of cod fishes, as distinguished from pollacks and lings, and includes under it the true cod (*gadus morrhua*), the green cod, the dorse (*morrhua callarias*), the coal fish (*gadus carbonarius*), and the fish known in England as the torsk (*brosmus vulgaris*). These different species I have seen sold in the market as "torsk," or cod.

When the fish are brought ashore, the party who remain on shore for the purpose commence the process of curing such of it as they do not dispose of to the fish merchants or large traders. The fish is prepared either as "klipfish" (rockfish) or "stockfish." The former mode of cure is that adopted by the traders, and consists of cutting off the head, taking out the entrails, separating therefrom the roe, liver, and sounds, or air bladders, splitting the fish, removing the vertebræ to within fifteen or twenty joints of the tail, washing it, salting it, and exposing it to dry on the rocks. The roe in all cases, and the tongues and sounds in some, are preserved in pickle, and the livers are sold for the manufacture of oil. The drying of the fish occupies about six weeks. This is the more expensive mode of cure, as there is no native salt, natural or manufactured, and the salt imported is subject to a heavy duty; but the fish cured in this way has the advantage of getting into the market sooner, as it is subjected to no restriction in reference to its removal from the drying ground.—The conversion of the fish into stockfish is effected simply by removing the head, liver, roe, sounds, and intestines, and hanging the fish to dry on poles, where it must remain until the 12th June, and on which it is not allowed to be placed after the 14th April; any fish taken after that time, if any be taken, must be cured as klipfish.

When the grains of the roe are increasing in size, which is at the latter end of February and the beginning of March, the cod is in its best condition; but when the roe is ready to be shed, which upon this coast is about the end of March, the fish falls back in condition; the spawning then begins, and the fishing is very seldom continued in the great fishery beyond the early part of April. The boats then seek their homes and return for the stockfish at the expiration of the legal time. The fish is then sold to merchants and sent to the principal shipping ports for export.

During the preparation of the fish at Loffoden there is a large amount of refuse produced, consisting of heads, entrails, backbones, &c. Until lately this was a

source of great inconvenience; a great portion being thrown into the sea before landing, and thus causing great injury to the fishing banks and harbours; the residue was flung upon the strand where it lay knee deep, rendering the atmosphere fetid for miles around. A small portion only was utilized as food for cattle. In 1855 a company was formed, called the Norwegian Fish Guano Company, for the purpose of converting this refuse and nuisance into manure. The process was at first found very difficult. The substance on being dried became an extraordinary hard tough mass, which had to be rendered fine by grinding; but a machine was at length invented which performed the work effectually and with rapidity; and since 1859 large quantities of fish guano have been produced with advantage to the country and the fishery, and with profitable returns to the company. An analysis of this guano shows the ingredients to be twelve parts of water, fifty-three of organic bodies, thirty phosphate of lime, and three of alkalies including salt; and the results of several trials show that it is equal to Peruvian guano when used in equal quantity. It is employed in the same manner as the Peruvian, but must not be harrowed deep into the soil, as the two principal ingredients of which it is composed, fish matter and fish bone, must be transformed by decomposition, for which the action of the air is necessary, before they can be taken up by the roots of plants.

To prepare the stockfish for food it is customary to soak it in water for several days, but by this soaking a great deal of its nutritive property is lost. To remedy this many experiments have been made, but the most successful is that adopted by the Guano Company. They began by grinding the fish into a kind of meal, but this was found to have the peculiar rancid taste of the stockfish, and was therefore not palatable as food. After various experiments, however, it was found that the meal could be effectually freed from its unpleasant taste and smell by heating it to a little under the boiling point of water. This heating is performed by placing a dish or other vessel containing the meal on a stone or fireplace by the side of which is also placed a cup or can containing water, and allowing the meal so to remain until the water is about to boil. During the drying the meal is frequently stirred to give admission to the air. By packing the prepared dried meal in well corked jars it can be kept for a long time; but it is always best when fresh dried. In this dried state the meal tastes crisp, like bread crumbs, and immediately after cooling has a slightly perceptible fishy taste, but not the rancid taste of the meal in its raw state. An analysis of this dried meal exhibits the following ingredients in 100 parts:—Water, two parts; protein substances, seventy-six; nitrogen therein, twelve; organic substances not containing nitrogen, six; phosphate of lime, six; other mineralic bodies (especially alkalies), six. From this analysis it appears that this meal is extraordinarily rich in protein substances or white of egg, the material which goes to the formation of muscle or real flesh. A bread is made of this meal by soaking one pound of dried fish meal for several hours in three quarts of water, then adding four pounds of oatmeal, and steadily kneading the whole. The dough is then rolled out, cut into cakes, pricked through with holes, and dried in a roasting or baking oven. The superiority of the meal over the stockfish consists in its capability of being prepared into food without soaking, which soaking extracts a considerable portion of the nutritive properties; that it retains the whole of the phosphate of lime as found in the stockfish, which ingredient is lost when the fish is prepared in the usual way; that it is a more concentrated article of food, and therefore better adapted for transport, and that on account of its separation into small parts it is more digestible than stockfish.

The produce of the cod fishery this year is a good average one, and may be taken as a fair exponent of the annual average produce for commercial purposes outside the country,—it is as follows:—

	No. of Fish.	Average price per 120 fish exclusive of roes and livers.
Loffoden,	21,000,000	6½ specie dollars.
Romsdal,	10,000,000	6 specie dollars.
Finmark,	11,000,000	3 specie dollars.

The prices varied very much, but these may be taken as fair averages.

Converted into weight this is about 60,000,000 lbs. of klipfish, at 1¼ specie dollar per 40 lb.

24,000,000 lbs. stockfish, at 1½ specie dollar per 40 lbs., together with 50,000 barrels of refined liver oil, at 38 specie dollar per barrel, and 25,000 barrels of roe, at 10 specie dollar per barrel.

These were the prices paid at Bergen before I left.

This gives a gross total value of the cod fishing of this year (with the oil) of £1,091,250.

The gross export of stockfish in 1864, was as follows:— . . . . 27,648,000 lbs.

	lbs.	
From Bergen,	17,212,000	
,, Vadso,	2,720,000	
,, Tromso,	2,640,000	
,, Hammerfest,	2,480,000	
,, Vardo,	800,000	
,, Other ports,	1,796,000	
		27,648,000 lbs.

The places of export were ports in the Mediterranean, Holland, Sweden, Belgium, France, Spain, Prussia, China, Chicago, Brazils, and the West Indies.

The total export of klipfish or rock dried fish in 1864, was as follows:— . . . 50,832,000 lbs.

	lbs.	
Christiansand,	18,960,000	
Bergen,	13,800,000	
Aalesund,	11,560,000	
Tronheim,	5,320,000	
Other ports,	1,192,000	
		50,832,000 lbs.

The places of export were Spain, Portugal, Hamburg, Brazils, and Great Britain.

In addition there were upwards of 60,000 barrels of fish salted in bulk especially for and exported to Russian markets.

The total export of cod-liver oil in 1864 was 7,578,000 quarts, and the places of export were Holland, Hamburg, Altona, and London.

The cod-liver oil is refined by steam process, and the principal places of manufacture and export are Aalesund, Christiansund, Tronheim, Bergen, Vardo, Romsdal, Bod, Tran, Christiania, and Tromso.

The total export of pickled roe was, in 1864, 34,000 barrels. Nearly the whole of this was sent to France to be used in the great Sardine Fishery off the coast of Brittany, which in one locality alone employs 2,500 boats and 11,000 men. The roe is thrown into the sea for the purpose of attracting the fish to the nets, and each boat uses on an average for this purpose fifteen barrels of roe during the season. The cost of a barrel of roe of 2½ cwt. may be estimated at over £2 per barrel. The sardines or sprats are either prepared with boiling oil, and secured in tin boxes, or packed in small barrels with salt between each layer. It is stated that there are in France nearly forty establishments for the preparation of sardines with oil; that there are ten millions of boxes prepared annually, and that the principal places of import are Australia and California.

The roe both of cod and mackerel is also highly esteemed in France as an agreeable and delicate article of food.

Herring Fishery.

The herring fishery is next in importance; and by a law dated the 24th September, 1851, it is subject to the following regulations:—

Certain officers of the navy and judges of districts, appointed by the Government, are to attend at the fishing

ground for the maintenance of order, and adjudicate upon differences, collisions, &c.

On Saturday evening, and the evening before every holiday (weather permitting), the nets must be taken out of the water, and not again placed therein until the morning after the Sunday or holiday.

All nets (except seines*) must be taken out of the water in the evening, and not re-shot till the following morning. The seines are allowed to remain in the water during the night, but not to be fished during that time; they are also allowed to remain in the water on Sundays and holidays, but not to be fished.

The penalties for an infringement of this regulation are—for nets, from two to thirty dollars, and for seines, from fifty to five hundred dollars.

For any interference with the net of another person, so as to sink it, a fine of one to ten dollars, provided warning be given.

If a seine is placed across a fiord, and there be a distance of 150 fathoms from the middle of the seine to a point at which there is a depth of six feet at low water, anyone can shoot his net inside the seine.

Every person can draw his net inside a fiord before informed that the entrance is closed by a seine, but not after.

If two seines enclose a fiord they must not remain so set over twenty-four hours.

Anchors are not to be placed closer to seines than eight fathoms, and no nets shall be allowed to stand in the way of shooting a seine.

A vessel whose rudder catches and displaces a net is subject to a penalty of five dollars.

Daylight fishing for herrings has always been considered in Ireland as calculated to drive away the shoals; yet in Norway daylight fishing is the rule; but I have reason to know that it is not strictly enforced in the summer fishery.

There are two great herring fishings carried on from Bergen, round south and east to Christiania. The winter fishing commences in January and continues to the end of March; the summer begins in May and continues to December. The produce of the summer fishing is much less than that of the winter; but the summer fish, though not so large, are fatter and better flavoured, and bring a higher price. Almost all the winter herrings are sent to the Baltic ports, and are cured as "gibbed" fish—that is, the entrails are all retained, as they are considered to impart a richer flavour to the fish, but the gills are removed for the purpose of causing the fish to bleed freely, and thus present a white appearance along the back bone when the fish is eaten in a raw state, as is the case in the towns around the Baltic. The fish so cured is branded by officers appointed by the magistrates previous to export for the Russian markets; but the value of the brand consists in simply securing the admission of the fish into these markets. They are again examined on their arrival there, and are passed or rejected by the local officers according to the condition in which they are found. The summer fish, which are not intended for these markets, but for the continent generally, are salted as they are taken, without the removal of gills or entrails. The fish are sold to the traders from day to day on being brought ashore, and are cured by them; and all the salt used in curing is procured from Spain, Portugal, Holland, France, and England. The summer fish are exported to Prussia, France, Spain, Portugal, Madeira, and Chicago; latterly they are finding their way into the English market, for which they are cured with as little salt as possible, in order that they may be converted into bloaters.

The barrels used for packing the herrings are chiefly made of pine or fir; but the better kind, and those intended for distant ports, are beech and birch, and some, but not many, oak. The majority of the traders use the cheapest barrels that can be got, which, of course, are the fir or pine, but this is often attended with great loss, because this wood frequently gives a peculiar and unpleasant flavour to the fish, and the cooperage not being so good as with the other kinds of wood, the brine runs off, and the fish are deteriorated in appearance and value, and diminished in bulk. The packing does not appear to be as carefully done as in Scotland and Holland, but I have seen as good specimens of coopering and packing as any country can produce.

The average quantity of herrings exported from Norway is—800,000 barrels of winter fish, at four to five dollars per barrel, purchased from the captors fresh at two and a half dollars per barrel; 300,000 barrels of summer fish, at six dollars per barrel, purchased fresh at three to four dollars.

A barrel of winter herrings contains 480 to 500 fish; a barrel of summer fish contains about 600.

The winter herring is a large dry, coarse fish, from thirteen to fourteen inches in length. The summer herring is divided into four classes or sizes; it is a plump rich fish, from four to ten inches long, but in my opinion, and I had daily opportunity of judging, much inferior to the herrings on the east coast of Ireland.

The boats used in this fishery are nearly all open boats, of different rigs, and varying in size from twenty to forty feet over all. Those of the first class have spritsail, foresail, and mizen; second class, spritsail and foresail; and third class, squaresail. The cost is from ten to ninety dollars, and five is the average number of men in each. There are about 8,000 boats; the daily take of each is from fifteen to thirty barrels; the large sized boat is capable of holding from sixty to seventy barrels of fish, and the common boat about thirty.

A few years ago a fishing company was formed at Bergen, and introduced a class of large Swedish boats, of about sixty tons to lie at anchor, cure the fish on board, and catch the fish by smaller boats, two of which were assigned to each of the larger; but the experiment failed and the company dissolved. The failure is attributed by some to the large outlay of capital as compared with what must be a precarious return, and by others to the impossibility of getting the natives to work the large boats properly, as, when a good fresh breeze came on, the men, with their usual instincts, would run for the nearest harbour instead of remaining at sea, and thus days would be lost and heavy expense incurred in maintaining a large crew without any return.

The boats are generally owned by the crews jointly—three, four, or five unite in the purchase of a boat, and each procures his own nets. The nets are of hemp, from twenty to fifty fathoms long and three fathoms deep, and the number in each boat depends on the size of the boat and the number of the crew. The mesh is from one to two inches. The nets are made by the family of the fishermen; but an attempt has been lately made to introduce machine cotton nets, which are cheaper than hemp, but not so durable, and are considered very good taking nets. The head rope is provided with corks or glass balls to give the necessary buoyancy; the foot rope weighted with lead or stones. The net is used either as a drift net or a set net; in the former case it moves along with the boat to which it is attached; in the latter it is anchored at both ends. Two buoys are connected with each net by ropes lengthened or shortened according to the depth, at which it is ascertained that the net should be hung. The height to which the fish rise, and therefore the height of the head rope depends upon the condition of the atmosphere; in mild or warm and hazy weather they rise near the surface; in cold weather they swim towards the bottom, so that the degree of heat or cold is usually a safe guide for determining the length of the buoy rope by which the net is raised or depressed. As a general rule, the fish are taken near the surface in summer and near the bottom in winter. When the surface of the

* The seine is a net of great length and small mesh, used to encircle a shoal of fish or stop up the entrance of a fiord when the fish are inside (see page 59).

water is muddy or agitated, a water telescope is frequently used, to enable the fishermen to see the shoals more easily. This is an instrument made of painted or japanned tin, about four feet in length, and shaped like a speaking trumpet; the larger end, which is about four inches diameter, and fitted with a disk of ground glass, is plunged into the water, and the eye of the fisherman being placed at the smaller end he is enabled to see to a considerable depth.

The depth at which the fish are taken varies from near the surface to twenty fathoms. The direction in which they run is influenced by the direction of the wind; when it blows from the west they are always found in greater abundance and close to the shore. The summer herring spawns in September and October; the winter in February and March. The spawning is believed to take place in the bays and estuaries, upon hard rocky ground, and the fish then fall back into deep water in the vicinity of the spawning ground.

In the summer fishing, which is chiefly carried on in the fiords, a large seine or sweep net is used, of about half inch mesh and strong twine, from 200 to 300 fathoms long, and 17 to 20 fathoms deep. This is shot so as to encircle or enclose a shoal of fish in the first instance, and the smaller nets are then employed within the enclosed space to catch the imprisoned fish. Large quantities of fish are taken by this means; but the cost of such a seine is very considerable, and this mode of fishing is only carried on by the comparatively few.

The visits of the herring to the Norway coast, or, perhaps more properly, their entrance into the shallower waters, are more steady and regular than upon our shores; but still there are places not now resorted to by that fish which formerly yielded very abundant supplies. The principal fishing grounds now are off Tronheim, Christiansund, Bergen, Stadtland, Stavanger, and Christiana; but the herring never appears now at Flekkefiord or Loffoden, where twenty years ago large quantities of good size and quality used to be obtained, chiefly in summer.

It is a remarkable fact that herrings of a particular size resort the same places at the same period every year—the large in winter, the small in May, from which time they increase in size till towards the end of the year; but the herrings taken from May to December never grow to the size of those taken from January to March, while they are superior in fatness and flavour.

As may be inferred from the size of the mesh of the seine, sprats and very small herrings are taken by that mode of fishing. These are preserved as anchovies by being steeped in strong pickle, and then packed in small kegs made of oak and particularly well coopered. They are very agreeable to the taste, and are eaten raw in large quantities in all the towns in Norway; but I am not aware that they are exported to any large extent.

Medusa are extremely abundant in these waters, and as one species, the *oniscus marinus*, is said to be very greedily eaten by the herring, it occurred to me that the superabundant presence of the medusa had some connexion with the steadiness with which the herring remained on the coast of Norway.

Mackerel.

Mackerel are taken with hook and line from January or February, but the shoals usually come upon the coast from Bergen round to Christiansund in the month of May, when the fish is full of spawn, and the fishing is prosecuted with vigour during that month and in June and July. The fish is very superior in size and flavour, but it is irregular in its visits, and appears to come in from the deep sea on the west. It is taken close in upon the coast, and for six or seven miles outward, in depths of water varying from one to nine fathoms, according to the temperature and direction of the wind.

There are two kinds of nets used—the set or trammel net, and the seine. The trammel net is about three-inch mesh, twenty to thirty fathoms long and three fathoms deep, floated with cork or glass, and not weighted on the foot rope. It is shot in the evening, fished after a few hours, and shot again towards morning, a time at which fish generally are taken in greatest abundance. The seine is about 150 fathoms long, seven deep at the ends, increasing to nine or ten in the bunt, made of strong cord, and of very small mesh to prevent the fish being entangled, floated with corks or glass balls, and the foot-rope weighted with leads. This is shot in a circle round the fish by means of two boats, one shooting the net, and the other keeping the end in position, and before the two ends are brought together so as to form a circle, stones and plungers (sticks weighted with lead) are thrown into the open space to prevent the advance of the fish, and drive them into the bosom of the net.

The fish is packed in ice, and sent chiefly to England, whence there are generally from fifteen to twenty boats of sixty to eighty tons on the fishing ground, waiting for cargoes. Forsand, Mandal, and Christiansand are the principal places for the export of mackerel. Considerable quantities are also salted or pickled, and sent to Christiania and the interior.

Lobsters.

The lobster fishery is one of great commercial importance, and is chiefly prosecuted in the vicinity of Bergen, Mosterhavin, Stavanger, Egersund, Fiekkefiord, the Naze, Mandal, Christiansand, and Christiana. The only regulation affecting it is one of season, and the close time fixed by law is from the 15th July to the end of September. This season is most effectually observed, arising from the fact that there is a penalty of one mark, or about 10*d.*, for every single lobster offered for sale or had in possession during the time, that every person is at liberty to prosecute, and that the fine, or a moiety of it, goes to the prosecutor.

The lobsters taken are almost all sent to England in well-boats. In each of the fishing localities there are one or two persons who intervene between the captor and the English trader. They purchase all that are taken, and dispose of them to the English merchants, whose boats come upon the coast periodically during the fishing season. The claws of the animal are pegged to prevent their preying upon each other during transit; but the pain and irritation caused by such a process—for the animal has unquestionably a nervous system—must produce a very deteriorating effect upon the soft or edible parts. The price paid to the fisherman varies from about 2*d.* to 6*d.* for each lobster; and an estimate may be formed of the quantity taken, from the fact that one trader in the vicinity of Bergen exports upwards of 200,000 lobsters every year.

The mode of capture is similar to our own, and the bait used is chiefly stale ray, herring, or Pilchard. The baskets or pots are either of the beehive or mousetrap shape, made of rudely woven twigs or osiers, weighted with stones, and lowered by buoy lines on to the rocky ground; or, where the bottom is not very rough, the drum-net trap is employed, consisting of hoop frames covered with network, and the entrances pursed, as in the English pot. A barrel is frequently used; the heads having been removed, a network of brass or iron wire, in the shape of a truncated cone, is placed in their stead for the entry of the animal. Another form, and one which appears to me to be the best and steadiest, consists of a flat bottom of rough wooden laths, to which a flat ballasting stone is permanently attached, and from which rise semicircular hoops, which are covered either with hemp netting, laths, or interlaced twigs. This, from its shape, is not liable to be disturbed, and entrances may be formed both at the sides and extremities. Large sized crabs are also taken in the lobster pots in some places, but for their capture fresh bait is always employed.

The Norway lobster grows to a large size, and is highly esteemed for its flavour. The belief as to its natural history is, that the tegumentary skeleton is thrown off at certain periods, when it becomes too small to contain

the constantly increasing body, and that the animal changes its external covering during its entire growth. When it quits its solid envelope, the whole surface of the body is already covered with a new and soft sheath, which, under the chemical action of the salt water, acquires the necessary solidity at the end of some days. During the period of moulting, it seeks the innermost recesses of the rocks as a refuge from its enemies in its defenceless condition, and remains there until the calcareous coating is perfectly hard. It is easy to know the new from the old coating: the former is smooth, clean, and fresh in colour; the latter is commonly overrun with parasites, such as *serpulæ* and *balani*, or sea glands.

Oysters.

The oyster fishery is of no commercial importance. Some oysters are found attached to the rocks around the coast, and they are even dredged in some few places where the bottom is suitable for the purpose, and the depth of water not too great; but the quantity taken is quite insufficient for the local demand. Generally speaking, I would say that the water is too deep, and the bottom too rugged and broken, for the abundant propagation and growth of the oyster. This mollusc is highly esteemed and eagerly sought after by the Norwegians; and I am happy to say that the blue book published by the Commissioners, and some conversations which I have had with persons interested in the prosperity of the country, have awakened some attention to the subject, and I hope soon to hear that an effort at cultivation has been made in the neighbourhood of Bergen, where—if anywhere on that coast—an effort of the kind may be attended with success. The place is a large lagoon connected with the inner harbour of Bergen; there is the requisite supply of fresh water, and the bottom, at present covered with mussels, seems in other respects to present the necessary conditions. This is one of the very few places in the country where there is anything approaching a shore—flat, with comparatively shallow water. The close season for oysters is from the 1st May to the 31st August, but it is merely one in name. During the whole month of August I saw some oysters brought into market without hindrance; it is true they were not many, but they were as much as could be got. The oysters taken in the vicinity of Bergen are large and coarse; but I understand that some of smaller size and delicate flavour are found in the vicinity of Stavanger and Christiania.

Ice.

From the high latitude of Norway, and the superabundance of ice in its numerous lakes, it would be naturally expected that ice should be largely exported to southern countries, and this used to be the case until late years. Now there is scarcely any export of this article; only an occasional cargo is sent in a return ship from Arendal to Spain or Portugal. This, I believe, arises from the circumstance that ice has been lately procured with greater facility at Wenham Lake and other places—the Norse lakes being very inaccessible and the roads almost impassable in winter.

Bait.

There is scarcely any perceptible rise or fall of tide in the Northern Sea, and there is an almost total absence of shore or flat ground, whether of sand or mud, laid bare periodically; and hence it will be at once inferred that there are no lug worms, sand eels, annelids, razor fish, or gasteropodous molluscs, which are such attractive baits in other waters, but for whose existence such a shore is absolutely necessary. The bait is therefore confined to the floating fish, crustaceans, and some small bivalves.

Disease.

Fish is very largely consumed by the Norwegians of every class; it forms a great portion of every meal, and is eaten in every variety of dressing and cure. The necessities of the poor, however, sometimes oblige them to eat it in a partially decomposed or badly cured state; and this has been the origin, or, at least, the proximate aggravation of a frightful and, in almost all cases, a fatal disease, which is peculiar to Norway, and known there by the name of "spedaskit." There are two large hospitals in Bergen altogether devoted to the treatment of patients suffering under this malady; and through the kindness of the resident physician I had an opportunity of seeing the disease in its various stages. It seemed to me to be a mixture of leprosy and elephantiasis. It commences by the exhibition of leaden-coloured callous tubercles upon various parts of the body; the nerves are then attacked and destroyed; as a necessary consequence of this the muscular fibre, which in health is firm and elastic, becomes soft, then paralyzed, and ultimately disappears, together with the fibrous ligaments and extremital bones; all sense of feeling, smell, and taste is lost; the limbs shrink up and literally wither away; the unhappy being becomes completely comatose, and life passes away without any indication on the part of the sufferer. It is a disease slow in its progress, but fatal in its termination; it is hereditary like pulmonary consumption. There is a law against the marriage of persons affected with it; but as it is frequently not exhibited until mature life, this prohibition becomes comparatively inefficacious in preventing the transmission of the malady.

Kinds of Fish.

The Bergen market may be taken as furnishing a good sample of the Norway fish. The following are those which came under my observation in my daily visits:—

True cod (*Gadus morrhua*); caught by line and net; bait—herring, pilchard, sprat, and mackerel, but very commonly taken with a clean unbaited hook.

Dorse, one of the Gadidæ (*Gadus callarias*); taken in the same way and on the same ground.

Torsk (*Brosmus vulgaris*); taken by line and net; bait—herring, pilchard, conger, and plaice; best in winter; found on same ground with cod; used both fresh and dried.

Coal fish (*Gadus carbonarius*). This is included among the Gadidæ, but not properly so. It is very voracious, and will take anything put on a hook.

Ling; taken by line and net; bait—herring, pilchard, conger, and plaice; best in winter; found with cod; dry cured and pressed for consumption.

Hake; taken by line and net; best in winter and summer; taken with nets in the early months, because when about to spawn, unlike other fish, they lose appetite, but after spawning they take any bait.

Haddock; taken by line and net; best in winter and summer; bait—sprats and pilchards.

The pollacks; taken by line; best in summer; bait—fresh water eels, eel skin, or other object kept moving.

Rockling (*Mustella vulgaris*); taken by line; bait—small crustaceans.

Bergylt (*Sebastes Norvegicus*); caught by line, and generally on the same ground with cod; bait—herring, pilchard, soft crab, sprats, and any small fish.

Gurnards, in two or three varieties; taken by line; bait—green crab and sprat.

Gray mullet; taken by net and line; bait—anything fatty.

Wrass; taken by line; bait—soft crab.

Gobies, in two or three varieties; taken by line; bait—green crab.

Mackerel; taken by net and line; bait of itself very good.

Herring, pilchard, sprat; taken by nets; the herring also takes a bait greedily at certain periods.

Bass (*Perca labrax*); taken by line; bait—shrimps and small crustaceans; best in summer.

Bream; taken by line; best in summer; very abundant; bait—crustaceans and fronds of the seaweed known as dillisk.

Skates and rays, four or five varieties; bait—mackerel, herring, or pilchard; eaten either fresh or dry cured; when stale it is very good bait for lobster.

Holibut; very large sized; best in spring; taken by line on the same ground as cod and ling, and with the same bait.

Turbot; taken by line; bait—herring or mackerel; a coarse fish eaten only by the poor, and very inferior to the turbot found in British and Irish waters.

Plaice; taken by line; bait—mussel and limpet; three varieties; very good fish; when not eaten fresh it is enviscerated, scored by deep incisions on the back and belly at right angles with the vertebræ, and dried in the sun.

Dab; taken by line and net; bait—small crustaceans and bivalves.

Sole, two or three varieties; taken by net and line; line fishing by night very successful—do not take bait in daytime; bait—turritella and hermit crabs.

Flounder; taken by line, with crab as bait.

Pole (*Pleuronectes cygnoglossus*); taken by line and net; bait—crustaceans and bivalves.

Conger and various kinds of fresh water eels, brown, silver, and steel coloured; and also garfish, chub and lake bream.

Preservatives.

In Norway as elsewhere there is great diversity of opinion in reference to the employment of bark, tar, or catechu, as a preservative of nets and lines. Some fishermen hold that the hemp, flax, or cotton, lasts as long, and is equally or more efficacious in capture without being subjected to any process of saturation or coating by the substances which others maintain to be useful or necessary. Accordingly in many cases no preservative material is used; while in several localities the opposite principle is acted on, and the nets and lines are steeped in boiling tar, or in a tannic solution, or in a mixture of tan and catechu. By some the nets are soaked in water before immersion in the preservative fluid; others plunge them in the fluid in a dry state; many dip them in water immediately on their being taken out of the solution, while again some spread them out to dry, in order that, as they suppose, the preserving material may be incorporated with the thread or twine. In fact each locality or community has its traditional mode of treatment or non-treatment, to which it firmly adheres, and which it believes to be the best, because it has been adopted by their predecessors. Where a mixture of tan and catechu is used, for a net of twenty-five lbs. weight, four lbs. of pulverized catechu is boiled in about sixteen to twenty gallons of water until entirely dissolved, and to this is added about four lbs. of young oak bark pounded small; the net is then put into the boiler and left to steep for forty-eight hours, or it is put into a barrel and the hot liquid poured upon it. It is stated that catechu contains seventy parts of tannic acid in every 112 lbs. of the material, while oak bark contains but twenty-five parts in the same weight of material.

The thread and twine of the nets and lines are almost altogether manufactured in the country, and the lines are mounted and the nets made by the fishermen and their families in the long nights of winter; but a very large quantity of the hooks are supplied by Dutch, English, and Scotch houses. The hooks are all tinned; and the patterns most used are those known as the Harwich, the Limerick, and the Kirby bends, and those of a bend peculiar to Norway, and called the Norsk hook.

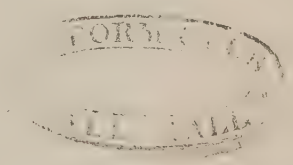
There are no trawls or drag nets used in Norway; and as all pursue the same modes of fishing, there are no antagonistic interests, and no conflicts among the fishermen, except such as are necessarily incidental to the collection of great numbers of persons in the same waters, each one anxious for his own success.

The fisheries are vigorous and progressive; the fishermen as a class are intelligent, orderly, and comfortable, but rather improvident; and so far as the making of the nets and the inshore line fishing by daylight, they are, in many localities, joined in their labours by their wives, daughters, and sisters, who evince a peculiar aptitude for the management of the light craft employed in the fishing upon this coast.

The International Exhibition of objects connected with fisheries was opened with great ceremony at Bergen, on the 7th August, in a spacious building lately erected for a Museum of Natural History and Antiquities; but as the articles exhibited were contributions from various nations, and therefore illustrative of other fisheries besides those of Norway, I reserve a detailed description for a separate paper. In the meantime it may be satisfactory to the Commissioners to know that I had the honour of being appointed one of the Judges, and in that capacity it became my duty to make a very minute and comparative examination of the numerous objects exhibited.

JOHN P. BROPHY.

28th October, 1865.



DUBLIN: PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

- 9 FEB 1966